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SOME

Observations

UPON

DISEASES,

CHIEFLY AS THEY OCCUR

IN SICILY.

BY

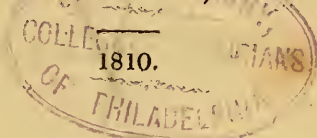
WILLIAM IRVINE, M.D. F.R.S. ED.

OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON, AND PHYSICIAN TO
HIS MAJESTY'S FORCES.

"Jamque in conspectu Siculae telluris."

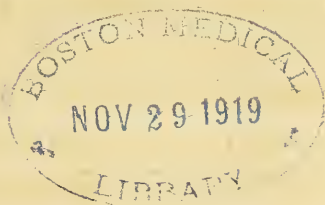
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MICROFILMED
AT HARVARD

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PREFACE.

IN offering the following observations to the public, I am actuated by the same motives which may, in general, be supposed to influence medical writers; by a hope, perhaps illusory, that I have made some remarks which may prove useful to others; and by a desire, neither unnatural nor blameable, to be known as the author of them. I am very sensible, however, that in my own particular case I may have over-rated their importance, and calculated too little upon my ignorance of what has been done by others, or too much upon the good that has been done by myself. It is therefore with diffidence that I have resolved to publish these observations; a step upon which I should hardly have ventured, but for the reflection that, such as they appear, they are the result of experience; that I do not describe from books,

but from the bed-side of the patient; nor offer plans of cure that are wild and hypothetical, but such only as have been sanctioned by some degree of practical success. The situation I hold in the army has afforded me ample means of examination and experiment. The number of patients that have been under my treatment has been very large. The cases of acute disease, such as continued and intermittent fever, and dysentery, have borne a great proportion to the others. They have arisen from various situations and occupations. The patients have been natives of almost every country in Europe, and have entered under my care at every stage of their disorders. In the course of two months only, September and October, 1808, there passed under my superintendance 163 patients, of whom 55 had continued fever, 50 intermittents, and 29 dysentery, for the greater part important and formidable cases; all of whom, except a few who died, and 19 left in the hospital, were discharged cured about the end of October. Of the remaining number of acute cases, 21 had rheumatism, more or less chronic, and were the first patients upon whom I tried the effect of a slight mercurial course, as related in Chapter XI.

Few opportunities occur where, during an equal period, more ample or satisfactory experience could be presented.

The British general army-hospital at Messina, in which this variety of patients was accommodated, is one of the best constructed buildings ever seen by me, or which can be easily imagined. I am sure of this, that, had it been built with a view to its present purpose, it would in all probability have been greatly inferior. In fact, it was originally destined for, and afterwards employed as, the college of the Jesuits. Whoever has visited the habitations of these reverend and learned fathers must know that their accommodation was seldom deficient. The rooms, which are now occupied as wards, are ample, exceedingly lofty, and well ventilated. The body of air within each is so great, that it can hardly admit of a noxious accumulation of effluvia. There is a supply of water, and abundant space under the arcades for patients to take exercise in all weather. The physician is under no restriction; whatever may contribute to the cure of disease, as to diet or medicine, is within his command; expected, of course, to be used

with prudent moderation, but never denied. Prescriptions and orders are obeyed with a punctuality which the practitioner in ordinary life is little accustomed to meet; and, upon the whole, the death of patients, when it occurs, can never be traced to a want of any possible means of relief, as far at least as the physician can judge. With regard to the generation and propagation of diseases, of which general hospitals have been sometimes accused, no instance of either has come to my knowledge, and in every respect it is impossible to conceive patients more favourably situated for recovery.

The merit of these arrangements necessarily belongs to Dr. Franklin, Inspector of Hospitals to the British army in the Mediterranean, a gentleman not less distinguished for his zeal and discernment in the public service than for his anxiety to promote every medical inquiry, and to whom I must, in this place, acknowledge my obligations for the most ample opportunities which he has always afforded me of observing, in my own practice and in that of others, every disease respecting which I was desirous to obtain information.

Without his assistance, indeed, it would have been impossible for me to have fully satisfied my mind regarding many of the points which I have, in the following pages, submitted to the reader's candour and consideration.

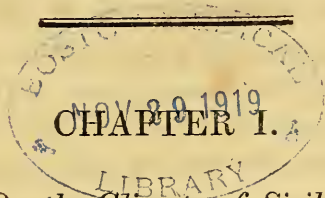
I do not know whether I ought to request indulgence for the allusions, neither very long nor very numerous, which I have in this work made to the writings of Hippocrates. That I was not induced thereto by any ill-timed desire of displaying learning may be fairly inferred from the circumstance, that I have quoted none of the numerous other ancient writers on medicine, whom it was as easy to pillage as it is tiresome and unedifying to consult; and that I have either translated the observations of Hippocrates into English, or cited them in the unostentatious but generally intelligible form of a Latin version, while it would have been more easy to assume an air of learning and obscurity by inserting the original Greek. To a writer on the diseases of Sicily the works of the Father of medicine irresistibly invite reference and quotation; and it may be reckoned, perhaps, equally useful and curious to observe the agree-

ment or discordance between the modern and the ancient maladies of the Mediterranean islands, as it is to measure the length of a broken column, or to discover the site of a ruined city.

Though the greater part of the following remarks have been made in the island of Sicily, they have not all been so. I have incorporated observations made in various places and times, distinguishing, however, those cases where the diseases of Sicily are exclusively alluded to.

OBSERVATIONS,

&c.



On the Climate of Sicily.

THE island of Sicily lies between $36^{\circ} 25'$ and $38^{\circ} 25'$ of North latitude, and between $12^{\circ} 5'$ and $16^{\circ} 5'$ of East longitude. Its climate is seldom very cold in winter, while in summer it is always oppressively hot. Till autumn little rain falls after the month of April; after the month of May almost none. Towards the end of August, or beginning of September, the rains begin: but the heat continues great till the middle of the latter month, after which it rapidly declines. In June and July fevers are frequent, and have much of an inflammatory type. In August and September they are still more common, and begin to be accompanied with more debility. From that time dysenteries increase in numbers; but after the end of October

few new cases comparatively occur. From November till May again the heat is moderate, the thermometer seldom rising above 65 or 70, and often ranging as low as 50, and sometimes under that degree.

The vicissitudes of heat are very great, and I have often seen an alteration of 20° in the temperature within twenty-four hours. Of consequence local inflammations are common during the winter season, and phthisis pulmonalis is frequently fatal. The houses and accommodations of all ranks here are more fitted to counteract heat than cold. Stone floors and unfinished casements ill suit the delicate frames of the consumptive in winter; while in summer the irksomeness of the sensation of heat is so great, that many prefer exposing themselves to certain danger, in the event of a sudden change of temperature, rather than continue to suffer from excessive warmth. Owing to this cause, I believe, many patients refer the origin of their phthisical complaints to the hottest season of the year. Light rains in autumn are commonly observed to be unhealthy; and nothing is so serviceable for the prevention of disease as heavy rains occurring about the middle of September, so as to extinguish the heat of the soil, and put an end to the formation of miasmata. Hippocrates, who practised in neighbouring situations and similar climates to that of Sicily, remarks, that if there "be rain in autumn, and the winter

be neither too mild nor too cold, and if rain fall in spring and summer timeously, the year will be salubrious: but if the winter be dry with North winds, and the spring rainy with Southerly winds, the summer will be subject to fevers." The reason of all which may be understood by the more favourable circumstances afforded for the formation of miasmata; though Hippocrates himself seems, not apparently with perfect correctness, to refer the disease to the greater heat caused by sudden evaporation of the water. The same author adds, that "if about the dog-days, or the rise of the dog-star, there should fall rain, then there will be hope of salubrity in the autumn:" the reverse of which is now true, unless the rains fall in extraordinary quantity, and are followed by cool weather.

Sicily is a very mountainous country: it is penetrated in several directions by ridges of primitive hills that are apparently a continuation of the Appenines. Between these hills, which are of considerable height, are to be found numerous water-courses, that are dry in summer, and in winter are occasionally filled by torrents. They are called, in the language of the country, Fiumari: their dimensions are various, and they are generally used as roads, frequently forming the only method of communication between different parts of the island. Many of these are extremely unhealthy in the latter part of summer and in autumn. They are said by the natives, in that case, to have a

“ malaria,” or bad air. But it is remarkable that, though some places have the “ malaria” every year, there are many where it exists in some years, and in others is altogether unknown. Thus, at Lentini, which is situated near a great marshy plain, there is a malaria every year, whereas in various villages on the coast the malaria is only occasional, or is at least only occasionally considerable. The reason of this I apprehend to lie in the different degrees of the moisture of the soil in these places in different seasons. In order to produce those effluviæ, so destructive to the human body, a certain combination of heat, moisture, and of decaying organised matter, is probably requisite, as it is known to be in all cases of putrefaction. It may not be easy exactly to point out what this combination is: but we can readily understand how too much or too little heat may prevent the chemical action of these matters on each other; how a profusion of moisture may prevent the operation of the heat, or the total absence of water leave nothing capable of being acted upon. As for animal or vegetable matter, I imagine there is always enough of that present in every soil where the other circumstances are adapted for the production of miasmata. At Lentini the country is very marshy, and a considerable lake is in the neighbourhood. In hot weather the ground is partly freed from its water, but it is never so dry as to prevent the formation of miasmata. In a number

of the fumares, on the other hand, the moisture is more irregular, and may be apt to vary so much as in some years to be too little, and in others too great. In many of the fumares which are apparently dry in summer, by going up towards their origin, one meets a streamlet of water, which gradually sinks in the gravel as it descends, and at last vanishes. But though it thus goes out of sight, it must pursue a subterraneous course for some distance at least, and sink through the soil. That it does so in some cases is evident, for at the bottom of the large fumare which bounds Messina on the northern side, if the gravel be removed for the depth of a foot or two close to the sea shore, the hole will in a short space of time be filled with fresh water. I have often observed that such fumares as have amongst the natives the reputation of being subject to a "malaria," have streams of water running all the year in their superior parts. Messina, which is extremely healthy, has not a fumare of any consequence running through it. Nevertheless, it must be allowed that this statement is not without objections. Some places on very high ground are sickly. Ibesso, or Gesso, which is situated eight miles from Messina, upon some secondary mountains lying on the side of the primitive ridge which runs northward to the straight of the Faro, has been always found an unhealthy quarter for our troops. It stands very high, but there is higher ground at some miles

distance. Even close to the town a gypsum hill overlooks it. Water, however, is very scarce in it, and there is nothing like a marsh in it. I must at the same time remark, that sickness seldom or never occurs at Ibesso, unless after rains falling while the ground is yet hot, that is, during the heat of summer, or early in autumn, when all circumstances combine for the production of miasmata. This is even the opinion of the Sicilians themselves. I remember a muleteer passing over the hills near Ibesso, in the middle of August, during a heavy rain, who remarked, that these rains falling on the heated ground would cause a great stink (*puzza*), and that many would be poisoned.

The winds of Sicily do not greatly affect its healthiness. The north wind is cold, the west wind is rainy, and the south-east is the celebrated Sirocco; whose qualities, however, have been greatly exaggerated. It seems to derive its peculiarities from its superior heat and dampness: nevertheless, I have not been able to observe any influence exerted by it upon diseases.

The chief peculiarity of this climate arises from its heat. It may be easily conceived that two months (July and August) cannot pass, with the thermometer on an average at 86 in the day, and but a few degrees lower in the night, without producing important effects on the human constitution. It appears to me, however, that to those who can and are disposed to take the proper pre-

cautions for avoiding the warmth of the mid-day in summer, the chillness and dampness of winter, and the frequent and enormous vicissitudes of the temperature, Sicily will prove a healthy residence. To avoid the heats, it is only necessary to keep within doors; but to avoid the cold and vicissitudes, well-finished houses, and the occasional aid of stoves, are requisite.

The unhealthy season in Sicily occurs during summer and autumn. By far the greatest number of deaths happen in these periods. The other seasons of the year are comparatively free from disease. It was probably a prejudice imbibed from the physicians of the south of Europe which originally gave rise to the idea that the summer was the most sickly season in England also. The reverse has now been ascertained to be the case. The frosts and dampness of our island do indeed give rise to an infinite number of inflammatory disorders: the aged and feeble generally fall victims to the severity of winter, and many consumptive patients perish during the cold weather. From these causes the number of deaths is more considerable in winter than in summer: yet it is probable that, even in Britain, among young and strong people, a greater proportion of dangerous diseases originate during the warm than the cold season.

CHAPTER II.

Of the continued Fevers of Sicily.

THE continued fevers that occur in Sicily may be divided into three classes; not, as I apprehend, from any radical difference of their nature, but from the powerful influence excited upon our bodies by the vicissitudes of the seasons. Nor should I have attempted this distinction, founded on no variety of their kind, but rather on the diversity of symptoms, did I not conceive that considerable advantage is derived in practice from this arrangement; which indeed, in one shape or other, it is essential to hold in view. In the brief sketch which I have given of the climate of Sicily, I have stated that the hot season continues during the months of June, July, and August, and a part of September. Throughout almost the whole of this period the fevers have a very inflammatory type, and run often a short course, though they are often protracted, and bear with advantage plentiful evacuations. These fevers I consider as belonging to the first class. Towards the end of

August, in September, in October, and sometimes later, another form of this disease appears, which is more rarely rapid in its course, which induces speedily a state of great debility that is not so certainly cured by general evacuations, and which is very frequently accompanied with universal yellowness of the skin. This I distinguish as the second class. From the month of November to that of May the weather is milder, and no excessive heats prevail. Fevers, however, still occur, though less frequently. They are then more uniformly long in their duration, the inflammatory symptoms do not rise so high as in the first class, nor does debility come on so rapidly or violently as in the second. These, which form the third class, very much resemble the Synochus of England, and are not so fatal as either of the former classes.

Notwithstanding this division, I must again remark, that I do not profess to say that there is any real difference in the nature of these fevers. On the contrary, I am disposed to join in opinion with those who consider fevers as divisible into intermittent and continued only; and that the latter, like the former, are variable, in a thousand ways, by the constitution of the patient—his diet and manner of life—the heat, cold, dampness, and dryness of the season or climate—certain ill-understood qualities of the air, and others not greatly more distinct of the soil. Whether this be so or

not, however, will not affect the observations that I propose to offer, which are the results chiefly of my own experience, and occasionally of that of others, and which are therefore little connected with any theory whatever.

CHAPTER III.

Of Summer Fevers.

MEN are attacked with fever during the hot months at all times, but more especially after exposure to heat and exercise in the sun. There is no circumstance so pernicious to the health in this country, and probably in most other warm latitudes, as much personal exertion in the heat of the day. Hippocrates states, as among the causes of fever in summer, or rather as the most frequent cause, "long journeys in the sun, and much thirst." But even at perfect rest a man is not free from the risk of an attack, if exposed to the sun's rays; nor will any precaution ensure certain constitutions. Intoxication adds powerfully to the force of other agents, and is sufficient of itself, with very little aid from other causes, to produce violent and dangerous disease.

The approach of these fevers is often sudden: they come on in general with some horror or shivering, which however is not very violent, in no degree corresponding to the intensity of the warmth which follows. Soldiers on duty as centinels have

been so powerfully and rapidly affected as first to drop their arms, and immediately afterwards to fall down themselves. I have known a man sitting in the sun in perfect health, who in a few minutes afterwards was found vomiting, and exhibited every symptom of fever. On the other hand, it seems occasionally to creep upon the patient, and at last speedily to assume a formidable aspect and violence.

In whichever of these ways the fever made its first attack, the symptoms did not materially differ in their appearance or nature. After the hot stage was established, the skin felt warm and dry : the pulse beat from 110 to 120, always full, and often, though not constantly strong. The patient complained of vertigo, pain of the back, general uneasiness, and thirst. The head also always ached, frequently violently ; the eyes were often suffused as early as the second or third day ; the countenance was red ; and the arteries of the head beat strongly. Before the eyes became red, and in cases where that symptom did not occur, they appeared watery and preternaturally clear. In some cases delirium came on very early. The bowels were costive, but not in general difficult to move. Sleep and appetite were gone. The disease had, not unfrequently, no tendency to a rapid crisis. I lost one patient on the 34th day, and many lingered to the 14th, 18th, and 20th. Occasionally, however, things ran a different course,

and a fatal termination occurred on the 3d, 4th, or 5th day from the attack. One circumstance is rather surprising, that in some of the protracted cases, though by no means in all of them, the symptoms continued the whole time extremely violent, and no sinking could be remarked till a day or two before death.

In other instances the urgency of the disorder seemed by degrees to abate. The patient lay in bed weak and helpless. Often the greater part of the phenomena of the disease were of favourable omen. One man whom I visited might be said to be right in almost every respect. His pulse, skin, and bowels, were natural. He eat heartily, and asserted that he was well. But there might be remarked a rapidity of speech, something odd in his manner, which in fevers of this country is a most fatal symptom. He became comatose the same evening, and died the next morning. Numerous instances of an analogous nature, though with some varieties in particular circumstances, have occurred to my observation. In fact, in many cases, but by no means in all, there might be distinguished with more or less exactness three stages of the disease. The first was the stage of fever, which lasted for an indefinite number of days, and gradually verged into the second or stage of interval or remission, in which the patient often thought himself, and sometimes appeared to others, free from danger, if not from

disease. This stage also lasted for an uncertain time, yet not in general for more than a few days; I have however seen it continue for a much longer period. During its existence it was never difficult for an experienced practitioner to detect some circumstance incompatible with health above all in the look of the eye, the management of the voice, or the appearance of the tongue. The third stage may be called the stage of coma. It came on very suddenly, and quickly terminated in death. I have never known, or heard of an instance of recovery from even the incipient symptoms of this stage. So remarkable were these three stages, though not always referred to their true causes, that patients were often considered as dying of apoplexy, who in reality fell victims to fevers. The intermediate occurrence of what I have called the interval, drew off the attention from the connexion between the early fever and the concluding coma which must also be allowed in its symptoms to bear a perfect analogy to complete apoplexy.

There were many cases, by far the majority indeed, in which the stage of interval did not appear. In place of it there was sometimes only an apparent amelioration of the disease. The patient seemed in a mending way; to be wearing out of the fever, as is said, and to be free from any considerable danger. But all of a sudden, without any obvious cause, he became worse, and speedily fell into a coma, that in a few hours terminated in death.

Turns in fevers no doubt occur every where. But I have never seen in Britain any thing so sudden and deceptive as has here fallen under my observation.

The stage of interval was in a very few instances not followed by that of coma: But instead of lasting for some days only, it was protracted for several weeks, and at last either spontaneously terminated in health, or was removed by the use of mercury; which of the two I am not perfectly able to decide, from the small experience I have had on this point, very few cases of the sort having come under my observation. I have little doubt, however, that after a certain lapse of time, health would in many, at least of such patients, have been restored without the use of any medicine, though I cannot help thinking with more uncertainty, and after a longer interval. It is worthy of remark, that an affection apparently, as I hope to shew, of the head may have the power of inducing a long train of lingering, and almost chronic symptoms, without the presence of any very violent action: and it may perhaps deserve inquiry, how far those nervous and protracted fevers of our own country may not owe their duration and their obstinacy to something similar. At the same time it is sufficiently obvious, that the early appearances of these diseases have little resemblance to those of the fevers of Sicily which I have been endeavouring to describe. Without, however, pretending to

theorise, far less to dogmatise, it may not be un-
useful to bear this possibility in our recollection.

These fevers, in general, appeared to be of the continued type. In spite of the authority of Hippocrates, and the similarity of the climate and latitude of Sicily to those of the places in which he practised, I could detect nothing like any observation of days, and certainly bark most freely administered in the interval was of no kind of use, unless perhaps in one case, which appeared to have something peculiar in its nature, and was accompanied by smart shivering fits in the evening—a symptom, as I have already remarked, in general altogether absent.

In seasons when the heat is considerable, which indeed is in Sicily almost always the case during summer, and when men are exposed to much exercise in the sun, or when they are even exposed to the sun without exercise, and when, above all, they are, in addition to these circumstances, obliged to sleep in marshy or unhealthy situations after the early rains, these fevers are apt to prove very frequent and mortal. They resist the ordinary treatment of fever in our island in a surprising degree; and I think every candid man must, after some experience of the advantage to be derived from bold and judicious practice, be somewhat shocked, or to speak more properly, perhaps be greatly vexed at his early, though unavoidable errors. Such, I must confess, at least, to have been

my own feelings. There cannot, in my opinion, exist a doubt, that the stimulant and tonic mode of treatment, so generally employed at home, is wholly inapplicable in these fevers, however gently and judiciously conducted, or however its effects may be counteracted by the affusion of Currie, or the purgation of Hamilton.

Though I have stated above, the circumstances which seem to increase the number and fatality of these fevers, it is not to be understood that any precaution will altogether prevent their occurrence. On the contrary, those who can, and do take every care of their health, suffer occasionally, though more rarely.

In the cure of these disorders, cinchona amply administered was of no sort of use. In the beginning, if it operated at all, it could only do mischief; and even in the latter stages, though I have often given it, not knowing what better to administer, I cannot say that any advantage was derived from it, though exhibited in every form and preparation.

Emetics, which are so generally beneficial in the commencement of British févers, must be used with caution in Sicily. When the determination to the head is considerable, and above all, when the stomach is apt to become irritable, they ought to be avoided, or employed only in the mildest form, without other object than merely evacuating the contents of the primæ viæ. These observations

are applicable to all the fevers which occur in Sicily at any period of the year.

The use of purges was certainly beneficial: the larger they were (within moderate bounds), and the more frequently they were repeated, the more good was done by them. They neither stopped the fever, however, nor cured it, though their general tendency was desirable. They relieved, in a small degree, every bad symptom; but unless in milder cases, and when taken very early, they never extinguished the disease. Their frequent exhibition appears to me, notwithstanding, indispensable to the proper treatment of fever, at the same time that it cannot be expected to supersede the employment of active and concurring remedies.

Saline medicines were inadequate to meet the violence of these disorders, though whatever effect was produced by them was certainly good. The moisture which they often occasion on the skin had little effect in checking or diminishing the fever, while it prevented the proper and frequent use of the cold affusion, which is a much more powerful means of relief.

For the same reason I cannot recommend antimonials. Their effect is undoubtedly to a certain extent good, but they never cure the fever. Their operation on the skin is objectionable, and on the bowels no better than that of many other purgatives.

Blisters have for a long period been applied to

the head in the latter stages of fever. In the disease which I describe, they often gave temporary relief. I cannot say, however, that they ever gave more.

Wine was at all times and stages pernicious. In the commencement it was most highly and remarkably so. Every bad symptom was increased by its use. The head-ach was converted into delirium, and that again into coma or sopor. Even at a more advanced period it has always appeared to me to do harm, and it has never been till the establishment of convalescence that I could perceive advantage from the administration of that or any other cordial.

The cold affusion was more powerful than any of the foregoing methods of relief. When applied soon after the attack of the disease, it often cut short fevers of the less violent kind, such especially as were not accompanied with a great determination to a particular point. When there was room to suspect the operation of miasmata in causing the disorder, its effects were not so decided. Nevertheless, it was as far as I have seen, or been able to learn, always useful to a certain degree. It checked the fever in the worse cases for a little time, but hardly ever succeeded in extinguishing it. I have even sometimes thought that when used in the very commencement of violent attacks before any evacuations, it was rather pernicious. And of one point I am pretty certain, that when

the head was strongly engaged, it not only failed of removing the fever, but tended to aggravate the more alarming symptoms.

Of all the remedies which have been commonly employed in fevers, none answered nearly so well as venesection. In the very early stages, and in all the slighter cases, the detraction of blood was the most certain method of procuring a solution. According to the experience of many practitioners, it was attended with the most manifest advantage, provided a large quantity of blood was taken away in a full stream, and at an early period. It did not, however, according to my personal observation, succeed in every case. When either the head was greatly engaged, or the fever in a more advanced stage, its good effects were less obvious. And it has always appeared to me, that where venesection does not cut short a fever, the propriety of its employment is somewhat ambiguous: since we are certain that every fever that runs its course will terminate in a state of debility unless suddenly relieved, which is not often the case, by some critical discharge or rapid solution. Copious bleedings, therefore, when they do not cure the disease, leave the constitution less able to resist its attack. There cannot, however, be any doubt, that by venesection, cold affusion and purgatives, many of the summer fevers of Sicily may be suddenly terminated, or greatly shortened and mitigated in their course.

In as far as the various remedies above mentioned did not decidedly cut short the disease, we may be pardoned for doubting of their efficacy. That all of them might do some good, I am not disposed to deny. But it was frequently of that ambiguous sort which one cannot appeal to with much confidence, nor defend with much success against a sceptical antagonist. Fevers have a natural tendency to termination. When left to themselves this termination is sometimes favourable, sometimes not; and it is very doubtful how far we can always influence it to the former of these. But the practice, or rather mal-practice of past ages, which it has been the glory of modern medicine to reform, has shewn that the latter is occasionally in our power. For my part I firmly believe, that in the prevention and cutting short of fevers, physicians have often performed meritorious service to mankind. But I doubt greatly of much of what has been said of our power of leading an established fever to a happy termination, and I am almost disposed to coincide with the opinion of the practitioner who apothegmatically comprised all the valuable part of our curative indications in a dumb nurse, a dark room, and cold water.

For a short time after I first had an opportunity of observing in my own practice the diseases of Sicily, and when patients in fever were committed to my charge, I proceeded upon the plan of leading

their disorders to a favourable crisis. I used for that purpose saline draughts, purges, occasional blisters to the head, opium, wine, the cold affusion, bark, a combination of James's powder and calomel, varying and combining these remedies in every way that seemed to me likely to prove beneficial. My confidence in such means was, however, speedily abated, by the occurrence of two cases of the above described coma. Perceiving the inadequacy of my method of cure, my attention was forcibly drawn to the remarkable state of the head, within which so much mischief seemed to be going on. It occurred to me as probable, that as no instance of this fever appeared without great head-ach and flushing of the face, there might perhaps exist some morbid action of the blood vessels of the brain to such a degree as to render ineffectual all the ordinary means of relief. In fact, by cold affusion, purges, and other remedies, I had obtained considerable temporary advantage. But the disease was often only suspended or alleviated, and seldom failed to return with redoubled violence. If this arose from the state of the brain, or any part of it, or of its membranes, much might be done by attending early to that state. As a coma coming on after a fallacious interval of ease, appeared to be a frequent cause of death, it seemed wise to begin at first with a view to the prevention of its occurrence. The disease certainly was not hydrocephalus, yet in some instance there was not

wanting an analogy with that disorder; and having experienced the inadequacy of ordinary means, I resolved to try fairly whether there was any thing in the condition of the head which prevented the usual tendency to a fortunate crisis, and obstructed the operation of remedies.

It is natural for a man who is, or thinks he is walking in the dark, to be cautious of his footsteps. I began to practice upon the principles now stated with much greater timidity than I afterwards found it necessary to retain. In my first case I was satisfied to commence with the application of leeches to the temples, and great relief being received from them, I next ordered the temporal artery to be divided with the most decided advantage. From case to case I proceeded, feeling my way, till at last I fixed upon the plan which I will now briefly explain.

When I received a patient not more advanced in the fever than the seventh day, I began by attacking his head. I took from the temporal artery eight or more ounces of blood. In violent cases it is often desirable to take twice or thrice that quantity. I applied a blister to one half of the head, the fore part generally. I ordered an ounce of magn. vitr. to be swallowed, and he had the cold affusion. This latter remedy, I very well knew from experience, would not in general remove the disease, but it mitigated the fever for a short time, and being occasionally repeated, added materially

to the comfort of the patient's feelings. I never in any one instance saw the bleeding fail to relieve or remove the pain of the head, and when delirium was present it lessened also that. In the evening, if the determination to the head was not extremely diminished, or rather if it was not nearly gone, I had the temporal artery opened again, and another blister applied to the occiput.

I have seen few cases in which a most material amendment was not visible in the morning after this treatment. Sometimes, however, a great deal of disease still remained. The head-ach, though somewhat better, was still violent; the eyes were suffused or turbid, the tongue very foul, the pulse hurried, and often delirium was present. Encouraged, however, by the alleviation of the symptoms, I persisted in my plan. I bled a third time from the head, and blistered again between the scapulæ, continuing the cold affusion. The number of times that this treatment was repeated was necessarily regulated by the effect produced. I never had occasion however to bleed more than four times. An ample portion of blood taken away at first often saved the necessity of repetition. But the standard rule of my practice was to continue the bleeding and blistering of the head while any degree of head-ach remained, or any symptom of determination to the head was visible. I should not have scrupled to have proceeded further than I ever found needful to obtain the great point of

clearing the head of disease. To stop short of that was to do nothing at all. The diseased action in the brain was sure to recur or go on, and the termination, though perhaps a little delayed, ran not the less risk of being fatal, at least in the more important cases.

It has appeared to me that these two elementary points of practice in fevers are susceptible of being to a certain extent substituted for each other. Blistering will never do without bleeding, but it lessens greatly the necessity of so copious a use of the latter remedy. Bleeding, on the other hand, is often successful alone. It does not however always succeed, and if it did, a physician ought never to take more blood from the constitution than is indispensable for its security.

Having ascertained, after the use of these means, that the patient no longer complained of any uneasy sensation in his head, excepting a little, and only a little giddiness, I proceeded to apply the cold affusion. This remedy, which before gave only transient relief, now appeared to have recovered its power. Its application was generally followed by a regular improvement in the pulse and diminution of the heat of the skin, and it was seldom necessary to have recourse to it many times before the fever was wholly extinguished. In many cases, indeed, in which the local bleeding produced its best effects, the cold affusion was hardly required, the febrile phenomena rapidly sub-

siding, without further interference on the part of the physician.

Although by such treatment as has been now described, the fever was frequently terminated, some of its symptoms still remained. The pulse, skin, tongue, head, bowels, and in general most of the functions were natural. But the appetite returned slowly: for some nights the sleep, though improved, was imperfect, and the strength seemed utterly gone. This debility, which came on after an illness of two or three days only, lasted for several weeks, hardly visibly diminishing, till at last the strength seemed suddenly to be restored. When the fever ran its course, and the patient escaped from its violence, the weakness of convalescence was yet more excessive, and continued for double or triple the time.

In this state of convalescence tonic medicines seemed to me of no service. Opium in every stage of the disease and recovery appeared to be hurtful. Wine, which I carefully abstained from during the fever, I allowed only in small quantities at first, after it had been absent for some time, and gradually increased it to a full dose. I was in general much more anxious that the convalescent should eat than he was himself; and upon the whole, I contented myself with a tedious return to perfect health, pretty confident that no great doubt existed of its ultimate attainment. The only medical treatment which seemed to me necessary or

useful, was to preserve the alvine evacuation of a natural frequency.

This plan, it is obvious, is directed towards cutting short the fever, and is inapplicable to its cure, when it regularly runs its course. Upon that subject I am sorry to say I have little satisfactory to offer. When the disease takes a fair hold of the system, I know not what to recommend. Almost every thing has been tried by me, and tried with activity, but every one without decided or certain advantage.

In the early stages of this fever, I have observed, that when the pulse was strong, the symptoms yielded more easily : when it was weaker and irritable the difficulty was much greater. In all stages the symptoms were often mild according to our method of reckoning them in Britain, when the danger was in reality considerable. A man never could be pronounced safe, while any thing was wrong about him. I have seen a patient die when no mark of disease had a short time before remained, excepting a very foul tongue. The thirst is not so urgent a symptom as it is in general in fevers of our own country. The tongue is often covered with a white crust of great thickness and compactness, which in the course of the disease becomes successively yellowish, brown, and black. The belly is rather costively disposed than costive. There is often a costive stool the day before the fever makes its appearance.

Affusion is upon the whole the best remedy directed to the cure of the fever. Sometimes in mild cases, and when used early, it is even successful alone. Purging, upon Dr. Hamilton's plan, was always useful. But the great object is to cure or stop the disease at first, for afterwards it is often impossible. In doing this, attention to the state of the head is of the greatest importance. If the head is not right, the fever, which affusion had stopped or mitigated, and would have cured, returns or goes on. The same is, though in a much less degree, true of the state of the belly. Costiveness aggravates the disorder, and favours its recurrence.

I would express my idea of the treatment of the head in the early stages of these fevers, by saying, that I would attack the head in fever as I would the eye in violent ophthalmia, by determined blistering and local bleeding, till the head be perfectly well, and the eye clear and lively. This practice ought to be followed at an early period of the disease. The earlier it is used, the greater is its chance of success. But it is perhaps never too late to do some good in this way, unless the fatal coma has supervened. When the head is thus restored to a healthy state, the cold affusion has often cured the fever, which it had refused to do before. By such treatment violent and alarming delirium was often stopped, and the patient finally restored to health. When in such a case from 20 to 40

ounces of blood have been taken away within 48 hours, the delirium being speedily ameliorated, and afterwards removed, it is a clear proof, in my apprehension, that debility had no share in its origin; and that therefore internal stimulants would have had none in its removal. Wine, from actual and unfortunate experience, I may assert not only to have been unnecessary in the cure of these fevers, but to have been pernicious by its effect upon the head. Opium in the same manner neither allayed pain nor procured sleep; while it aggravated the delirium and the affection of the brain, besides producing an unfavourable disposition to costiveness.

The preparations of antimony received a full trial from me. I cannot say that they were hurtful; on the contrary, they rather seemed to do good. That good was however in a slight degree only, and these medicines were unable to extinguish this formidable disorder. Besides this their operation prevented the use of other and more powerful remedies, and the slight and temporary alleviation which they procured was thus dearly purchased by the omission of more efficacious methods.

The most useful application after the topical treatment of the head was the cold affusion. Though exceedingly often employed by me, I cannot say that I *ever* saw any harm arise from its use. I have, notwithstanding, ordered it to patients in

whom the fever was protracted for 10 or 12 days, its force being broken by the treatment above recommended, less actively or less early employed, but its progress not altogether stopped. In such cases the pulse became weak, the heat of the skin more moderate, and the debility was considerable. Each affusion checked the fever, which continued to return with intervals, progressively lengthening, till it was finally extinguished.

I have observed, in many cases, that where the cold affusion did not succeed in cutting short the fever, it prevented at least for a while its violence, though often the symptoms continued to recur, returning each time with additional violence, till at last they overwhelmed the powers of the constitution. In order to produce, however, all the good effects of which it is capable, the cold affusion ought to be repeated more frequently than it usually is. No specific number of repetitions can be prescribed. The body is, if possible, to be kept cool. Sometimes one or two affusions in the day will suffice for that purpose: sometimes twenty will hardly be enough.

I had occasion to be acquainted with one case in which the heat of the skin was very great, and the patient habituated to be relieved by the cold affusion. One day, however, he was affected with a violent shivering fit, and feeling of cold, accompanied with much real heat to the touch of another. The cold water was poured over him, and

life was almost extinguished. A general relapse seemed to have taken place, and it was with some difficulty that he was restored to his former state by warmth and internal stimulants. No ultimate bad consequence followed, but the accident strikingly illustrates the recommendation of Currie, to avoid the affusion under such circumstances.

In some cases where the affusion was decidedly useful, I found myself impeded in its employment by the moist state of the skin, which it either produced, or which spontaneously occurred. This perspiration undoubtedly cooled the surface, but not so much as to bring down the temperature to the natural standard. On the contrary, the fever seemed to proceed in its career. Knowing the dangerous and fallacious nature of these disorders, which, while they exist, never cease to be formidable, I thus found myself prevented by Currie's rule from using the remedy in which I was disposed to confide. Unwilling to act in opposition to the advice of that ingenious physician, I endeavoured to accommodate the patient's body to the use of the affusion. I removed gradually his bed-clothes, till the influence of the cool air checked the perspiration, and his skin presented at once the desired requisites of excessive heat and perfect dryness. At that moment the cold water was employed, not only without any consequent inconvenience, but with great and manifest advantage; with present alleviation and final cure of the dis-

ease. This practice I have now followed in a very great number of cases, and I can answer as well for its safety as for its utility.

The affusion gives a very great shock to the body. I have employed it upon my own person, and can testify that its secondary effects are much more pleasing than its primary. Notwithstanding this, men in general liked it, and were anxious for its repetition. But though this was generally the case, it was not so universally. Some men, from peculiarity of nervous constitution, I suppose, disliked the remedy, who nevertheless required it, and were benefited by it. There were other men to whom it was also ungrateful, and to whom it was not useful, perhaps proved even pernicious. Such cases I speedily learned to distinguish from the others, and to treat on a different plan. Men of this description came in with all the ordinary symptoms of fever, but the proportional violence of those symptoms was not such as has been stated above. The head was less affected, there was no delirium, the face was paler, the pulse was weaker, and the heat of the skin was more moderate, though still considerable. Upon inquiry there was often some uneasiness of the bowels, though no purging. Such men did not appear to require much topical treatment of the head: they disliked the cold affusion, and were not relieved by it. In a few days all these apparent cases of fever terminated in dysentery.

I think I may safely affirm that the fevers which I have described rarely ran their regular course, when they were treated on the plan now stated, before the fifth day. The tediousness of convalescence was very remarkable. In those who recovered from a fever which had not been cut short, sometimes several months elapsed before even a very moderate degree of strength was restored, and this happened under a liberal allowance of wine and diet. When the fever was early arrested in its career, a wonderful weakness immediately appeared, much more than was complained of a few hours before when the fever still remained. In fact the fever seemed to produce an artificial feeling of strength like intoxication, which disappeared with its cause, as the strength from wine does with the return of sobriety. During the convalescence intermittent fevers occasionally supervened, which yielded readily to bark. Sometimes also dysentery came on, though not so frequently. A few patients near the crisis became extremely yellow: nothing of this sort appeared in common. All who ended fatally had a leaden sallowness of complexion for some days before death.

From the observations which I have stated above, there is in my mind fair reason to suppose, in the commencement of these fevers the existence of an affection of the blood-vessels of the brain, which I would call inflammatory, but for the danger of confounding it with phrenitis. Pure phre-

nit is a disease which has never fallen under my observation. But in the affection of the head attending these fevers, the described symptoms of phrenitis were not present. Neither the hard and strong pulse, the violent beating of the carotids, nor the ferocious delirium were observable. The slow and uncertain course of the fevers was equally irreconcilable with such a supposition. The progress of the disorder more resembled that of hydrocephalus. We had an imitation of the three stages of the latter, generally it is true, obscurely, yet sometimes sufficiently distinct. But many analogies were here also wanting. Squinting, a characteristic mark of hydrocephalus, I never could observe: the state of the bowels was very different, and recoveries were as frequent from the fever as they are rare in hydrocephalus. The state of the pulse too was altogether unlike. In one circumstance, however, which I have omitted sooner to mention, there is some analogy. This condition of the internal vessels of the head, though it is generally, is not always indicated by that of the external. We may be satisfied, I think, with admitting the following conclusions, without insisting too minutely on the name and nature of this derangement.

1. That there is in these fevers an affection of the brain, or of its vessels, which yields to treatment adapted to diminish local inflammation or excessive action.

2. That this state, or some consequences of it, may remain during intervals in which the fever is perfectly absent, and when no violent symptoms of any sort are present.

3. That this state, if neglected, is extremely apt by inducing effusion, or otherwise, to terminate in coma and death.

4. That while it continues the fever will infallibly return, if for a time it has been suspended.

In all these conclusions, I think I am fairly borne out by the facts stated. The treatment most useful, was precisely what such conclusions would induce us to adopt. General bleeding, which was sometimes employed, frequently gave wonderful relief. As far as my observation has gone, however, it was less advantageous than the topical, especially in those cases where the determination to the head was strongest. But that general bleeding should relieve all sorts of inflammatory disorders, is no more than one would expect. It has appeared to me, that though many instances of these fevers yielded to venesection from the arm, there were others, which though alleviated were not cured, the affection of the head returning and terminating in death, whereas I never knew the topical treatment fail in any one case. Irresolute, or too sparing use of this latter might probably have had occasionally a fatal consequence. In fact, unless the head is fairly cleared of disease the patient is never safe.

The appearances observed upon dissection were somewhat various. In some cases nothing very remarkable could be, or was discovered in the brain or its membranes. In others the cerebral veins were turgid with blood. In many there was a red spot on the dura mater, about the middle of the longitudinal sinus, of the size of a dollar. Sometimes a little pus, or rather inflammatory exudation appeared about this spot. Occasionally the convolutions of the brain were lined with a gelatinous matter which probably consisted of serum included in cells of a fine membrane resembling the pia mater. In all these cases we have good ground to infer the existence of excessive action at one period of the disease, and in some we can even discern the cause of the comatose state. It is probable, however, that in fevers of all countries many singular appearances might be detected in the brain if examination were as often made as it is carefully avoided. I have myself witnessed some remarkable proofs of inflammatory action in the bodies of those who have died of this disease in Britain; and if my memory does not deceive me very much, Morgagni relates many instances of a similar sort.

I may be permitted to remark, in general, with regard to dissections, that the tolerably sound appearance of a viscus after death from a fever which has continued for a number of days or weeks, does not by any means, in my apprehension, prove that

no disease could exist in it in the commencement of the attack. It is possible, I conceive, that the brain may be affected in many cases, at first so as to influence the progress of the disorder, but from the subsidence of that action in the later periods no mark of its existence may be discernible after death.

With regard to the causes of the fevers of which I have been treating, there can be little doubt that heat is the principal. It is not however the sole cause. In numerous cases, especially towards the latter part of the season, there are marks of the influence of miasmata, and I am strongly persuaded that these two causes have a power of co-operating and producing fevers of which the symptoms vary according to the predominance of the one or the other. I conceive that the autumnal fevers differ from the summer ones in being more connected with miasmata.

Not one of these fevers has ever appeared to me contagious. At least I have seen nothing to induce me to adopt such an opinion. The question of contagion, however, is a very difficult one, and one positive argument outvalues a thousand negative ones.

The following case will show in practice what I have been above endeavouring to explain in theory.

“ Sept. 12, 1808.

“ H. S. ætatis 24, was seized three days ago with shivering, head-ach, and other symptoms of fever. Complains now of violent head-ach, giddiness, rest-

lessness, and heat. Tongue covered with a thick white crust. Face flushed. Eyes suffused with blood. Pulse 120, full, but not strong. No stool to-day. Skin hot and dry.

R. *Magnesiae vitriol.* \bar{z} i statim sumend.

The cold affusion frequently.

13. Was extremely delirious all night. Several stools. In no respect better than yesterday. Eyes redder.

Continuatur affusio frigida.

Reptr. magn. vitriol.

Mittatur sanguis ex arteria temporali ad \bar{z} viij, & repetatur vesperi si opus.

Adhibeatur vesicatorium capiti anteriori.

14. Lost fifteen ounces of blood. Much less delirious. Eyes better.

Repetatur arteriotomia.

Adhibeatur vesicatorium occipiti.

15. No delirium. Eyes almost well. Pulse 108, much stronger. Skin still hot and look confused.

Repetatur arteriotomia ad \bar{z} x.

Affusio frigida frequenter.

Magnesiae vitriolatae \bar{z} i.

16. Nearly well. Slept a good deal. Tongue moistening.

Continuatur affusio.

17. No complaint. Excessively weak and without appetite.

Continuatur affusio pro re nata.

R. *P. jalap.* gr. x. *Calomel.* gr. v. Capiat secundo quoque die ad tertiam usque vicem.

“The patient required after this time no treatment. His appetite began to return in a few days, and then he had a little wine. He remained, however, very weak till about the middle of October. It cannot be necessary to multiply examples of this sort, though, if necessary, I could add a volume of cases. The uniform success of the above practice rendered variation unnecessary. Its peculiarity consists in two points: first, in the repetition of local bleeding till the head is *clear of disease* or morbid sensation; secondly, in the application of blisters to the head in the *early* instead of the later periods of fever.”

The descriptions of the Coan sage have been sometimes praised at the expense of his practice. It appears, however, to me, that physicians would have done well, in this part of the world at least, to have followed his plans a little more. He remarks, and frequently pointedly, in the course of his writings, that a bleeding from the nose and ears, in fevers, often preceded a solution; and was, I doubt not, the cause of it. Though he did not follow up this hint, his practice was nevertheless judicious, and must have been successful. He bled from the arm: he shaved the head, and put cold applications to it; and administered glysters. It was only necessary to have pursued the plan a little further, and to have overcome that aversion for purgatives which he had. It is somewhat

strange that he should have accused them of warming the head in some fevers, while we use them for absolutely the contrary purpose, to cool it. Perhaps this may be accounted for by the irritating, drastic and unmanageable nature of the cathartics which he employed; and of which alone, indeed, he possessed the knowledge. I fear hellebore would agree no better with our fevers now than it did in his days.

Though, however, it does not appear that Hippocrates ever generally employed topical bleeding of the head for his ardent fevers, he seems to have been aware that the head was strongly engaged in the disease, by his method of treating it. The only case which I have been able to find in his writings which resembled a fever (for it is perhaps not so altogether beyond dispute), and where he bled from the head, is the following. It is curious to see how medical men are coming back to somewhat like his system.

“*De Morbis, Lib. II.*—Rigor, dolor, et febris per caput, maxime ad aurem, et ad tempora et ad sinciput, et oculorum regiones dolet, et supercilia ipsi incumbere videntur, et gravitas caput detinet, et si quis ipsum moverit, mingit, et multum et facile mingit; et dentes torpent, et stupor ipsos tenet, et venæ attolluntur ac pulsant in capite, et non potest quietus esse: sed anxius est ac desipit præ dolore. Huic quidem si per nares aut aures

eruperit, aqua profluit subpurulenta et sanus evadit; sin minus plerumque in septem diebus moritur. Hic morbus maxime fit ex febre lipyria quum liberatus à febre, nondum purgatus, aut cibis se impleverit, aut inebriatus fuerit, aut in sole laborarit. Quum sic habuerit, primum sanguinem de capite mittito undecunque tibi visum fuerit. Et post sanguinis missionem, raso capite, perfrigatoria ipsi adhibeto. Et si alvus non subeat infusum per clysterem immittito. In potu vero ptisanæ succum frigidum dato, et aquam insuper bibendum. Si vero ad perfrigatoria non remittat transmutatione facta utre utitor ac calefacito postquam autem quieverit dolor; cibis utatur alvum subeuntibus et ne impleatur. Ubi vero vigesimum diem attigerit, sedato dolore, fomento capiti ipsius adhibito; ad nares medicamentum apponito, et interposito triduo medicamentum deorsum purgans exhibeto."

Hippocrates, however, by no means always followed this sort of practice; and, to confess the truth, it is somewhat difficult to see any reason for some of his variations of prescription. In his very next case of fever, where he says that a discharge from the nose or ear will save the patient, he recommends warm fomentation to produce it, though he had the lancet in his hand. The excessive multiplication of the species of fevers in which he indulged, in his classification of them,

though useful and perhaps unavoidable in the dawnings of medical science, was in other respects disadvantageous, and renders it not a little difficult to apply his observations to practical purposes.

CHAPTER IV.

Of Autumnal Fevers.

THE fevers which I have been considering in the last section do not suddenly cease in September, which I have stated as the period of their appearance. Sometimes, indeed, cases occur later, precisely resembling those of July and August. On the other hand, cases of the second variety of fever often appear at an earlier period than I have fixed for their origin. But somewhere about September the fevers of Sicily begin to assume a lower type. They occur more frequently and violently in unfavourable and marshy situations. They are attended with rather more shivering. The head-ach is less violent; the face is less flushed; the tongue is yellower. The pulse does not continue strong for so long a period; and symptoms of debility come on earlier. A great many of those most violently affected become excessively yellow, without any alleviation of their disorder. The stomach is more irritable, and a sort of diarrhœa is often present. The vomiting is bilious, and of

a dark green colour; but never black, as far as I have seen. Sometimes the liver is tender, but not frequently, nor considerably so.

These fevers run out to a great length occasionally. I have less often observed any thing like the interval described in the last section, but the patients sometimes die suddenly with apoplectic symptoms. Intermittents more frequently make their appearance during the state of convalescence from these fevers than in that from the former. An eruption of blood from the nostrils, which occurs now and then in summer, becomes more rare in the autumn. The parotid gland sometimes swells to an enormous size, and in spite of all treatment goes on to suppuration. All such cases that have fallen under my observation terminated fatally; so far is this tumour from being of a critical nature, as it was esteemed by ancient authors.

It is remarked by Hippocrates, that yellowness appearing before the 7th day is a bad symptom, but after that time good. I should suppose that this merely expresses, that in a violent fever yellowness comes on sooner. But I have been unable to ascertain any good effect from that symptom, at any period. At the same time, it does not appear that fevers without yellowness are at all safer than those with it. It is not a constant symptom, and perhaps is not connected with the essential or dangerous part of the disorder.

Patients recovering from these fevers are very prone to relax; and the least obstruction to free and even plentiful evacuation of the bowels is extremely pernicious, and often induces an irritability of the stomach which it is not always easy to quiet. This last symptom occurs chiefly in those cases in which yellowness appears to some extent, and may perhaps be referred to the accumulation of bile.

These autumnal fevers do not appear to me to differ in any respect from the former class I have described so much as in the more rapid appearance of debility. When the patient is seen early enough, however, there has always been, in my experience, head-ach, flushing of the face, redness of the eyes, or at least wateriness, and beating of the carotids, symptoms all indicating a determination to the head. Whether the earlier debility arises from the more violent action on the brain, or from some other cause, I will not presume to determine: but I can safely state, that the same sort of treatment which I have used in the summer fevers also proved successful in these. The effect of remedies was not exactly the same in the two. General bleeding was not so useful, and much less frequently extinguished the disease, in the autumn. The necessity of purging was much greater. I have also remarked, that the topical treatment of the head sometimes extinguished danger, when, from being used after the fever had been established for some

days, it could not extinguish the disorder. Under the evacuating system, boldly pursued and well directed, I have often seen the symptoms of debility diminish and vanish; and never yet have I witnessed any bad effect from it. To this moment, indeed, I have lost no patient in fever treated upon the topical plan as early as the third day, or even the fourth. I do not expect that success will always be so perfect, but even its temporary universality is a proof of the benefit of these measures.

There is something very remarkable in the swelling of the parotid gland, which I have noticed as preceding a fatal termination in these fevers. In the two most remarkable cases of this sort which have occurred to me, the patients were attacked with fever, which appeared to subside and yield to treatment not such as I have commonly used directed against a disease of the head, but in other respects similar to what I have described. Both got well, walked about, recovered their appetites, and were for several days in this state, when the parotid began to swell, and soon became a large tumour. Little alarmed at this, I first tried leeches, cold application, and purges: but these not answering my expectations, I ordered poultices and fomentations, by which suppuration speedily ensued. From the first appearance of the tumour the fever had recurred with more than its original violence. I afterwards tried bark, wine, and opium; but in spite of all my efforts the patient very spee-

dily died comatose. The second case came upon me, aware of the danger. I employed section of the temporal artery, and instantly the look of the eyes changed from a heavy reddish state to something more natural. Other evacuations, topical and general, were used. Things, however, went the same way. This patient also died, but not comatose. I inspected his brain with much care; it was redder, and fuller also of venous blood than natural, but not more so in the neighbourhood of the diseased gland than elsewhere. Though I cannot point out the method of counteracting this disease of the parotid, it is useful at least to know its danger.

When these fevers run their course, they do not seem very much affected by any treatment. Calomel and James's powder seemed to me of use, chiefly, I suppose, by gentle and continued purging. I have employed arsenic with a view to their possible connection with intermittent fevers, and in some cases I have thought with advantage: but in a few others such irritability of the stomach came on as I could with great difficulty stop. Sometimes even it remained till the death of the patient. Bark is greatly safer and better. Touching the mouth with mercury is sometimes useful in cases where the yellowness is great, but it is prejudicial early in the disorder. When the fever is far advanced we can hardly abstain from bark, wine, and opium; though I cannot perfectly satisfy

myself that they are ever of much benefit. In venturing an opinion of this sort, I am sensible that I may in some degree be influenced by prejudice; and having accustomed myself to regard the arresting of the course of fevers as the great object of medical practice in these diseases, that I may have attended too little to the more uncertain benefits of other modes of treatment in other stages. I shall always be happy to perceive advantage, however small, from the stimulant and tonic plan, under circumstances where more effectual means cannot be employed; and the practitioner would be culpable indeed, who, upon any preconceived notion, should neglect the most active use of remedies in which even he did not confidently trust, unless he has something better to propose in their room. Total inactivity, at least in acute diseases, can hardly ever be justifiable.

As to the connection of this sort of fever with much miasmata, I am at a loss what to say. It is by many considered as a remitting fever. I do not pretend to decide the point: I am more disposed to regard heat and miasmata as frequently concurring in different relative degrees of force to produce fevers. It is certain, at any rate, that the Sicilian autumnal fevers were cured without bark; and that in very many instances, by far the greater number, no appearance of any intermission or remission was visible. At the same time, I must add, that I have heard of a fever which occurs in

Sicily at first sight resembling a continued fever, but which after bleeding from the arm showed obvious remissions, and was usefully treated with bark. I cannot, however, speak on the subject from my own experience.

From every observation which I have been able to make, these fevers are not infectious; though I would be understood as speaking with more caution upon the subject regarding the autumnal than the summer epidemic.

I began to use the topical treatment of the head for the cure of fever occurring after the abatement of the heats, in the same year that I employed it first during the summer, to wit, in 1808. I do not think, however, that I could select any case in my own practice so illustrative of the nature of these diseases as the following, which was most judiciously treated by my particular friend Dr. Farrel, at Milazzo, in the end of September, 1809, and which has been obligingly communicated by him to me. I now lay it before the reader without farther preface than to mention that that gentleman was intimately acquainted with my views upon the subject of fever, in the greater part of which I am happy to have his concurrence.

“ Serjeant Hewsy, Roll’s regiment, ætatis 27, a native of Swisserland; a robust, plethoric man. Admitted Sept. 27, 1809.

“ Complains of giddiness and pain of head, nausea, thirst, and great lassitude. Says he was

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NOV 29 1919 OF AUTUMNAL FEVERS.

Attacked suddenly, yesterday, at two P. M. Had been exposed to the sun on the deck of a transport at the time he first felt indisposed, and also for several hours the preceding day. Had not been on shore for six days before his illness commenced. Says he is not addicted to the use of intoxicating liquors, and that he has not been intoxicated for several months past.

" This weakness and giddiness are so great, that he cannot walk by himself. On endeavouring to stand erect, his knees bend under him, he totters about, and grasps at any thing near him, in order to support himself. It appears, however, that he stretches out his arms to reach objects which are at a considerable distance from him. Says that every thing appears confused before him, and that he thought the objects, which were at such a distance from him that he could not possibly reach them, to be close at hand. Notwithstanding this derangement of vision, still he is perfectly collected, and has no one symptom of delirium. Tongue dry, brown in the middle, and furred. Skin dry, and parching hot. Face flushed. Eyes suffused and watery, and there is a number of red vessels on the conjunctiva. Pupils rather contracted. Complains of the light giving him pain, and says that his giddiness has increased very much within the last three or four hours. There is an expression of great anxiety in his countenance, and his head rolls about as if the muscles

were not able to support it. Pulse not perceptible at the wrist, though he has been half an hour in bed in the horizontal posture; but perceptible in the carotid arteries and at the temples, and above 140 in the minute. Breathing laborious, but does not complain of pain in his breast or abdomen. Has had no evacuation of his bowels for the last two days.

“ 27th, 9 o'clock A.M.

“ Detrahantur statim ℥ x sanguinis ex arteria temporali.

Postea sumat magnesiæ vitriolatæ ℥ i.

Abradantur capilli et applicentur vesicatoria duo pone aures et unum nuchæ.

Hora undecima adhibeatur affusio frigida.

“ 2 o'clock P.M.

“ Symptoms the same as in the morning. No stool. Vomited his salts and drink. Through unaccountable neglect only ℥ iv of blood obtained from the temporal artery. I opened the artery myself, and took away twenty ounces of blood. I was encouraged to carry the bleeding to this extent by finding the pulse to become perceptible at the wrists, to rise and grow full, and the pulsations to become regular and distinct during the flowing of the blood. After I stopped the bleeding, the pulse was 120 in the minute at the wrists. The face was less flushed, and the eyes less suffused; and the patient said that the pain and giddiness of his head were considerably diminished. He could now look at the light without much pain, his breathing was less laborious, and he could move himself briskly in his bed.

“ 6 o'clock P. M.

“ Pain and giddiness of the head much diminished. Countenance more natural. Skin hot and dry. Tongue still foul. Much nausea. Vomited his salts. Pulse 120.

“ *Injiciatur statim enema purgans et repetatur post horas duas, nisi alvus responderit.*

Sumat statim grana sex calomelanæ et gr. x. pulv. jalap.

Repetatur affusio frigida.

Lemonade ad libitum.

“ 28th, 8 o'clock A. M.

“ Four scanty stools from the injection. Vomited his purging medicines and drink. Slept a little in the night. Complains of great nausea. Says that his head-ach and giddiness are much less than yesterday; but on sitting up in bed, he complains of feeling giddy, and says that objects appear still confused before him. Appearance of countenance, particularly of his eyes, much more natural. Tongue still dry and furred. Skin hot and dry. Pulse still 120.

“ *Detrahantur ex brachio sanguinis ℥ xvij.*

Repetantur affusio frigida et enema purgans, et applicetur emplastrum vesicatorium capiti.

“ 2 o'clock P. M.

“ Head-ach and giddiness gone. Not the slightest remnant of suffusion or redness of eyes. Countenance rather pale. Pulse 110. The pulsations feel regular and distinct. Vomiting and nausea still continue. Rejected the enema without any faeces.

“ *Habeat misturæ effervescentis ℥ ii omni hora.*

Repetatur enema purgans.

“ 6 o'clock P.M.

“ Blood taken this morning presents a buffy coat. Nausea and vomiting still distressing. Three stools from the injection; but I cannot ascertain from the attendants whether they were copious or not. Skin still rather hot and dry. Pulse 108, but reduced to 100 by the cold affusion.

“ *Repetatur affusio frigida.*

Habeat mistura effervescentis ʒ ij. cum tinct. opii guttis sex omni hora ad sextam vicem.

Injiciatur enema purgans hora octava.

“ 29th, 9 o'clock A.M.

“ Slept a little during the night. Three scanty stools from the injection. Nausea and vomiting much diminished. Has not vomited his drink since twelve o'clock last night. Eyes and countenance perfectly natural. Pulse 100, soft, full, and regular. Heat of skin very little above the natural standard. Tongue clean at the edges, and moist in the centre. Can move himself about in bed, and assume the erect posture, without feeling any giddiness of his head, or dimness of sight. Breathing perfectly natural. His head, neck, and temples are an open blistered surface.

“ *Continuetur mist. efferv. sine tinct. opii.*

Habeat statim calomel. gr. vi. et jalap. gr. x.

Injiciatur enema purgans hora undecima.

“ 6 o'clock P.M.

“ Retained the calomel and jalap, and had four stools in the course of the day. Nausea and vo-

miting have totally subsided. Head continues free, and countenance natural. Skin of the natural temperature. Pulse 84, soft and regular. Tongue clean.

“ Omittentur omnia medicamenta.

Water-gruel ad libitum.

“ 30th, 9 o'clock A.M.

Was prevented from sleeping by purging during the night. Had six stools. Pulse 84, soft and regular. Tongue clean. Skin soft, and of the natural temperature. Says that he has no thirst, sickness at stomach, or uneasiness in his head. Has caught cold, however, by getting out of bed so often in the night. The thermometer, on the 27th and 28th, stood from 76 to 80. On the 29th it fell to 68, and on the night of the 29th it was as low as 60°.

“ 2 o'clock P.M.

“ Some cough. Says he has a sensation of heat and stuffing in his chest. Skin moist. Tongue clean. Pulse 84.

“ Applicetur emplast. vesicator. pectori.

“ 6 o'clock P.M.

“ Sat in his bed very inconsiderately for a great part of the day exposed to a very cool atmosphere, and was even so foolish as to walk bare-footed several times through a large room with a tiled floor. Complains of pain in his breast, cough, and difficulty of breathing. Cannot lie on the side in which he feels the pain. Skin hot and dry.

Pulse 110, full and strong, with some hardness. Face flushed, but the appearance of the countenance is very different from what it was when he was admitted. Has had two stools in the course of the day.

“ Detrahantur statim ex brachio sanguinis \bar{z} xiv.

Sumat mist. mucilaginosæ cochlear. duo urgente tussi.

Habeat haustum anodynum hora somni.

“ October 1st, 9 o'clock A.M.

“ Pain of breast and difficulty of breathing, and cough, still continue. Cannot make a full inspiration. Pulse 110. Skin hot and dry. Had two stools since last night. No head-ach or uneasiness about his head.

“ Applicetur vesicator. lateri,

Repetatur V.S. ad \bar{z} xii.

Continuetur mistura mucilag.

“ 2 o'clock P.M.

“ Pectoral symptoms by no means diminished. Pulse still 110, full and hard. Skin hot. Tongue foul. The blisters have produced a strangury. Flushing of the face still continues. Bowels open. No head-ach or sickness at stomach.

“ Detrahantur statim ex brachio sang. \bar{z} xviii.

Habeat haustum hora somni, cum tinct. opii guttis xl.

Water-gruel ad libitum.

“ October 2d, 9 o'clock A.M.

“ Pain of breast and difficulty of breathing much diminished. Says that he feels rather a stuffing in his breast than pain. Some cough, with free ex-

pectoration. The first sputa that he brought up were tinged with blood. No more flushing of the countenance. Skin beginning to become moist. Tongue still foul. Pulse 94, and feeble, but not hard. Has had no stool since yesterday.

“Applicetur emplast. vesicator. pectori.

Sumat statim magnesiæ vitriolatæ $\frac{3}{4}$ ss.

Continuetur mist. mucilag.

“After this the man was bled once more to four ounces, and had a mixture with nitre and opium. He speedily recovered his health, without any bad symptom.

“The foregoing case throws more light on the fever that appeared this season at Milazzo than any other that has occurred to me. The patient, on his admission into hospital, was only 18 hours ill from the commencement of his attack. His pulse could not be felt at the wrist, and he had all the symptoms of excessive debility. Had I not been entirely guided by the extraordinary appearance of his face and eyes, I should never have thought of bleeding him; and I should not have ventured on that measure, I candidly confess, had I not been a good deal familiarised with the nature of the disease. I am perfectly confident that the apparent debility and lowness of the pulse were owing to a compression of the brain. It is very extraordinary, however, to see that symptom come on so early; and it is by no means usual to find the pulse so nearly obliterated until within a few

hours of death. That the state of his pulse and debility furnished no contra indication to letting blood is proved by the circumstance of his pulse rising during the flowing of the blood, becoming more distinct and regular, and by that of all the feverish symptoms diminishing and ultimately disappearing by a repetition of the bleeding and the use of purgative medicines. The extent to which blood-letting may be carried in the autumnal fevers of this country is clearly demonstrated by this man's case. He was bled on the first day to 24 ounces from the head, and he lost 18 ounces on the following day from the arm. Fortunately it was not necessary to take any more blood on account of the fever, the cure of which was completed by the assistance of purgative medicines, blisters to the head, neck and temples, and the cold affusion.

“ A new disease (inflammation of the lungs) supervened almost immediately to the fever. For this he was bled at six o'clock of the evening of the first day of the inflammation to the extent of 14 ounces, and on the following day at nine o'clock to 12 ounces, and at two o'clock of the same day to 18 ounces, making in all 44 ounces lost in the space of 20 hours. Now had the debility which manifested itself on the first day of his illness been that of typhus fever, or that which is said to form a symptom of low fevers, it is not in the nature of things that he could have withstood such a loss of

blood, and the effect of strong purgative medicines, without the assistance of any nutriment but that furnished by diluent drinks. He lost for the two diseases, in the space of five days, 86 ounces of blood.

“ I am much disposed to believe that the disease with which this man entered the hospital is the same as that which very erroneously has been called ‘ low remitting fever :’ every medical man, except myself, who saw him, gave that name to his disease.”

To the above very illustrative, judiciously treated; and important case, and the remarks which are subjoined, I have comparatively little to add. It confirms every thing which I have advanced, or at least great part, upon better authority than I am willing to reckon my own. I may remark one thing, that though no yellowness appeared in this case, it is highly probable, from the violence of the symptoms, that it would have done so, had not the course of the fever been cut short by the activity of the treatment. Yellowness seldom comes on at so early a period. This case also affords an example of what appears to have been very frequent in the time of Hippocrates, the transition of simple fever into pneumonia. Whether from accident, or from the extensive use made by me of antiphlogistic means in fever, nothing similar has occurred in my experience, except in one case, where the affection of the

breast was much slighter, and yielded to blistering and cupping. Considering that I have in no one case omitted the cold affusion, and that I have used it advantageously, even when the system was saturated with mercury, it is perhaps not too much to infer, that the inflammation of the lungs in the foregoing case did not arise from it, as, however, will very probably be supposed by many.

CHAPTER V.

Of Winter Fevers.

THE fevers which occur in the colder part of the year in Sicily have little that is remarkable in their phenomena or progress. Though they sometimes put on a malignant appearance, and imitate the fevers of the summer or autumn, in general there is nothing of this kind, and they run a course greatly analogous to the ordinary cases of synochus in England. They hardly ever fail to yield to the four grand means of topical bleeding and blistering, cold affusion and purging, and require less activity of treatment than has been recommended in the former sections. Notwithstanding, when left to themselves, or too long neglected, or aggravated by peculiar circumstances, they are apt to be occasionally formidable, and become difficultly curable by any species of management. In such cases the same sort of treatment may be employed as has been recommended in the former pages. I have indeed introduced the notice of these diseases, only that I might remark the existence of a milder variety of fever, such as would

exist at all times in the country, but for the heats of summer and the miasmata of autumn.

If the plan of treating fevers which I have here recommended, and endeavoured to support by an appeal to experience, shall be found to answer in the hands of other physicians, and especially if it shall be found to be advantageously applicable to the cure in other countries of fevers with analogous symptoms, I apprehend that the improvement proposed must be considered as a method of removing an obstruction to the successful use of the cold affusion. It does not appear that Dr. Currie had any knowledge or suspicion that such an obstruction could exist, or existing was removable. I think, however, that I have seen cases in our own island where it did exist, and not only prevented the ordinary advantages derived from the cold affusion, but so modified the fever, and disordered the brain and nervous system, that benefit was derived from no method of treatment whatever. I shall offer, however, a few observations on this subject in the following chapter.

I have remarked in the former pages, that after the affection of the head, which I imagine to have existed in these fevers, was removed by the topical bleeding and blistering, the fever did not necessarily subside, although it was almost always considerably mitigated. I have stated that the use of the cold affusion was required for entirely extinguishing its force, at least in many instances. I

find it difficult therefore to reconcile the facts here stated, with the ingenious opinion of Dr. Clutterbuck, with which, through the medium of a Review, I have very lately become acquainted. I do not think that phrenitis, or any analogous disorder of the brain, often, far less always, exists in fevers. Something inflammatory in the action of the vessels of the head I do think a frequent occurrence. But as the existence of such an action has not been observed to be constant in fevers, I cannot regard it as their cause. Fevers not only occur without any thing like increased action of the blood vessels of the brain, but frequently remain after such action has subsided. I have said thus much on the theory which Dr. Clutterbuck has so ably supported, because it seems closely connected with the practice which I have ventured to recommend. As I wish, however, to avoid any discussion in which I am not very strongly borne out by facts, I must decline entering further into the regions of theory, where as in fairy land we are amused with a thousand wild imaginations and pleasing illusions, which it costs us an effort to forget when we return to the sober occupations of life.

There is one point of which I wish to say a few words, though it does not properly belong to a medical treatise. I have never considered it as a point of any importance, whether blood was taken from the temporal artery or jugular vein, provided

it was taken. The gentlemen acting under me have always preferred the temporal artery, and it has even by some been considered as the more effectual. To open a temporal artery, however, is according to books of surgery, a formidable thing. Steel springs, and all manner of scientific compression must be at hand to stop the hæmorrhage. And I remember a celebrated professor who dissuaded from the operation on account of the danger of subsequent bleeding. I have, I am sure, ordered the section of the temporal artery to be performed, at least 300 times, and I never saw any accident, however slight, occur but once, and that was merely the loss of a very few ounces of blood during the night, by which the patient was much benefited. This arose from the artery not being cut across after the operation, which effectually prevents any danger. The artery may be opened, either with the lancet or scalpel, but the latter is best. By judiciously selecting the part to be cut, it may be opened several times on each side without any inconvenience: and the cases are very few indeed, so few as to be unworthy of consideration, in which a great deal of blood may not be obtained by a dexterous operator from some part of the head.

According to the view which I entertain of this subject, the detraction of blood from the temporal artery, or jugular vein, operates not by diminishing the quantity of blood in the system, but by

lessening the tone and the increased action of the arteries of the head, very much in the same way as I believe physicians now generally imagine that venesection operates in pleuritis.

In many cases I do not doubt that general blood letting may be highly useful in fever, and act directly in lessening the determination to the head. There are however other instances in which the head is affected more violently, or in which from some cause the affection of that part is more difficult to remove, and in these the local bleeding has a decided advantage. Besides, in all cases, much less blood need be taken locally than generally, the advantage of which it is unnecessary to point out.

In many of these fevers of Sicily, and indeed in those of other countries also, the head-ach, which existed at first spontaneously, ceases after three, four, five, or more days. I think it is certain, however, that some disease within remains, though not indicated by any sensation of pain. After the head-ach has thus spontaneously ceased, the chance of *removing* the fever by the topical treatment is considerably lessened. But the effect of bleeding immediately, or at a moderate interval, after the cessation of head-ach is unquestionably often highly beneficial. It is a point of great practical nicety to say how long, and to what extent this remedy may be advantageously applied. In all these fevers also slow pulses in the commence-

ment occasionally occur. This symptom by no means indicates peculiar danger. On the contrary in one of the most moderate cases which I ever saw, that of a German soldier in the summer of 1808, the pulse was 42, and continued so till the fever subsided. Notwithstanding this man had no flushing of the face, no violent head-ach, no great heat of skin, and speedily recovered under the daily use of purgatives alone. Similar instances of slow pulse have occurred to me several times in fevers of our own country, in which on recovery the pulse rose to an ordinary frequency. I remember two such cases extremely distinctly. In another case the pulse was preternaturally slow, but about the fifth or sixth day became quicker without any amelioration, or indeed any change upon the state of the disease. There were in none of these patients any marks of the affection of a particular part more strongly than usually occur in cases of common synochus.

CHAPTER VI.

Of the possible Advantage in other Climates of the Practice recommended in the former Chapter.

I HAVE hitherto trod safe ground. If I have not taken the best road, I have at least seen where I was going. Nor should I have now ventured into the regions of hypothesis, but that I hope that what I have yet to state will be regarded only as opinion unconfirmed hitherto by experiment, in which I may be wrong without implicating the credit of the practice which I wish to recommend.

Although, in order to adhere strictly to the rules of induction from the facts before me, I have hitherto avoided any considerable allusion to the fevers of other countries than Sicily, I am persuaded that something of a similar practice might occasionally be adopted in fevers of our own islands with decided advantage. We have there, it is true, fevers in which one would be reluctant to spill a single drop of blood without the clearest views to direct us. We have putrid fevers, where if there are any inflammatory symptoms, they are short

and transitory, and followed by a disproportionate debility. We have nervous fevers, certainly in their progress, if not in their commencement, of a very low type. I do not mean to dispute with any one for the existence of an inflammatory state in these diseases, though I am far from regarding it as impossible. But there is yet another kind of fever more prevalent in Britain than any of these, the synochus, in which the early symptoms are without all doubt of an inflammatory nature. When that disorder occurs in young, strong, and plethoric people, it is attended with appearances greatly analogous to some of those which I have remarked in the summer fever of Sicily. To the eye indeed the analogy is perfect. The course is not exactly the same; but there occur the violent head-ach, the throbbing temporal and carotid arteries, the flushed face, and the brilliant, if not the blood-suffused eye. From every observation which I have been able to make on these fevers, wine in the early stages appeared to be pernicious, and not very certainly beneficial, even in the latter. I remember one patient who was treated for a synochus on the usual plan, and whose disease terminated in death. On opening his head a quantity of pus was found upon the dura mater. If a sort of horror of infection, together with a persuasion of its inutility, did not prevent dissection after death caused by fever from being more frequent, such appearances might, perhaps, be found commoner

than is imagined. If any faith is to be put in analogy, and it is to be cautiously done in scientific subjects, I am firmly persuaded that some at least of the patients whom I have myself lost in synchus at home, might have been saved by the plan which I have found successful in Sicily.

I have besides seen bleeding in the jugular vein, or leeches on the temples, of great use to patients affected with fevers in Britain, when the face was flushed, and the head racked with pain. Many practitioners indeed use leeches. I remember when during the course of my education, about 14 years ago, I acted as clerk in the Infirmary of Glasgow, to a most able and ingenious physician (whose name I refrain from mentioning, lest it should not be agreeable to him), that many cases of fever came into the hospital, chiefly occurring in newly raised Highland fencible regiments, where the men were young and strong, and upon better diet than they had been previously accustomed to. For some time about six ounces of blood were in the very commencement of the disease taken from the head with great relief of the head-ach and stupor. The symptoms, however, returned in a few days, no concurring means being used, nor the bleeding ever repeated, and after a short period the practice was abandoned. The reader will readily imagine that I now do not attribute this abandonment to any inefficacy of the measure, but to the circumstance of its not having been employed under the

guidance of any fixed rule, to its not then having been apprehended that it was possible, far less essential, to clear the head of disease, so that of consequence only a temporary palliation could be effected.

Of the fevers of the West Indies I have had no personal experience ; I have been informed, however, by practitioners of judgment and experience to whom I have communicated my views upon these subjects, that appearances occur in the yellow fever which might readily be supposed to yield to treatment such as I have proposed. It is probable that the reader may have already remarked in the three stages which I have occasionally observed in fevers of Sicily, a resemblance to those which are described by writers as existing in the West Indies. The redness of the eyes, the head-ach, and the throbbing of the carotids in the yellow fever seem to indicate the propriety of evacuations from the head. The vomiting has been held to be proof of an affection of the stomach, though it is well known to be equally, if not more so of one of the brain, and the term of gastric fevers has been invented to distinguish this variety of disease. Upon the whole I am well aware how necessary it is to speak with caution of what one has not seen, and I only recommend to medical men *within* the tropics, the *consideration* of the system of treatment which has succeeded in my hands in a temperature little inferior to theirs : That I do not do so without fair

grounds, I hope the following extracts will abundantly prove to the judgment of all.

From Dr. Clark's History of the Yellow Fever.

"The head-ach was of a peculiar kind, being entirely confined to the lower part of the forehead, the eye-balls and their sockets. There was a remarkable *inflammation* of the tunica adnata, and flushing of the cheeks. An hæmorrhage from the nose during the first twelve or eighteen hours seemed to relieve the head-ach, and some recovered after this symptom appeared: but if it did not come on before forty-eight or seventy-two hours the disease proved fatal."

It is proper to remark that Dr. Clark condemns generally the use of venesection, and as to bleeding from the head there is not a hint of it in his book.

From Dr. Mosely's Treatise on Tropical Diseases.

"There will be a faintness, and generally a giddiness of the head, with a small degree of chilliness and horror, but never a rigor. Then immediately will succeed an high degree of fever with great heat and strong beating in all the arteries of the body, particularly observable in the carotid and temporal arteries, flushings in the face, gasping for cool air, white tongue, but tinged with yellow after the retchings have commenced; excessive thirst, redness, heaviness, and burning in the eyes; heaviness and darting pains in the head," &c.

Dr. Mosely found active bleeding and purging

the best remedies. I have not at the present moment access to the works of other authors on West India diseases. As far as I can trust to my recollection, however, and as far as I have learned any thing by conversing with practitioners from that country, similar phenomena to those above described were always observable. It is enough to quote those passages. The reader can easily form his own deductions.

There is another disease very formidable to the human race, the plague, but which has never occurred to my observation. Many of our army practitioners have, however, had ample opportunities of seeing it. From one of the most able of these, I have indirectly learned, that in his practice, when blood could be obtained from the temporal artery, when the bowels could be opened, and when the buboes suppurated, the patient always recovered. In an account of some cases of the plague communicated by Dr. Blane to the Medical and Physical Journal, "redness of eyes and severe head-ach" are enumerated among the symptoms.

It is remarkable, that in all the dissections almost of patients dead of the yellow fever or plague, we have long, ample, and sometimes uninteresting accounts of the state of the heart, the liver, the gall, bladder, the stomach, the spleen, and the intestines, but as to the head, whether

from conviction of the inutility, or dread of the trouble, few comparatively have inspected it.

There are several other febrile diseases in which I would pursue the same analogy. But if the practice recommended shall ultimately turn out useful in simple fever, it will be a very easy matter to transfer it to other diseases, where it may appear to be indicated.

CHAPTER VII.

Of Intermittents and Remittents.

INTERMITTENT fevers occur chiefly in autumn, and in peculiar places exposed to the influence of miasmata. Tertians are the commonest, next to them quotidians, and the rarest according to my observation are quartans. They are all however very frequent. The facility of cure is according to the order in which they stand above, the tertians being easiest managed, the quartans most difficultly. Any anomalous varieties which did not observe an exact period were more obstinate than the rest.

Few men died of these fevers. Sometimes, however, when the disease was very strong, or the patient very weak, the cold fit proved fatal. Occasionally, though not at all generally, the head was considerably engaged, and required particular attention. When the fever went on for a few paroxysms, yellowness was not unusual, but did not betoken any particular danger, nor as far as I could discern, any permanent disease of the liver. But if the disease became at all protracted, there was

the greatest risk of such an affection of the spleen or liver, as it was afterwards difficult to remove, and which frequently terminated in dropsy. The importance then of curing these fevers with as much rapidity as possible is manifestly very great.

Cinchona is by far the most effectual remedy for intermittents, and is much more effectual in substance than in any preparation. I used the following formula :

℞ Pulv. cinchonæ flavæ, ʒ i.

Tinct. opii gtt. v.

Tinct. zingiberis, ʒ fs.

Aq. ʒ i fs. Fiat haustus.

This was given every hour during the day, or from six to twelve times according to necessity. If it purged, the patient got as soon well as if it did not. In general no evacuations were required, or not more than a dose of castor oil, or other mild purgative. In most cases bark thus exhibited cured the fever very speedily indeed. But if the pulse was strong, if the patient complained of heat of stomach, with a flushed face, and greater head-ach than usual, the sulphate of zinc given in doses of a grain and a half every two hours during the intermission was more successful. It seemed to remove the inflammatory diathesis, and often cured the fever alone. Latterly, I have frequently used it from the first, and it may to a certain degree be substituted for bark. It will stop many agues, and render less bark necessary in all.

The arseniate of soda in doses of an eighth or ninth of a grain thrice a day is also a very powerful medicine. The objection to its exhibition, founded on the fear of the ultimate bad effects of the long use of arsenic on the body, may be obviated by employing it only to stop the fever, and then preventing the relapse by bark. Few fevers resist altogether the action of arsenic for more than three days. Where the economy of bark is not an object, these observations are of course of no value, supposing them to be correct. But I cannot help observing, that though I have used arsenic very often, I have never seen any ill effect from it, and I will venture to assert, that an intermittent does more harm to the body during one paroxysm than arsenic during a month's exhibition.

There is in these diseases, as well as in others, a great deal of idiosyncrasy. One man will be cured sooner by bark, another by arsenic, and a third by sulphate of zinc. For this reason, I have seldom continued the use of any one of these more than two days, unless obvious advantage was derived from it. The changing of medicines is indeed of infinite benefit in all diseases where it can be done.

In most cases I have accompanied these medicines with good diet and a reasonable allowance of wine, which perhaps did more good than my physic. Nothing could be more gratifying than to

compare the countenances of men three days after their undergoing medical treatment with that which they had before.

For cutting short the fit, opium, ether, and hartshorn seldom failed, and an emetic of sulphate of zinc was an effectual preventive. In the very few cases which were obstinate, an ounce of bark with a grain of tartar emetic given at the commencement of the chill was generally successful, continuing of course the full diet and the use of the bark in the intermissions.

In some cases of intermittent alternating with dysentery, I have been very much perplexed. If the dysentery was gone, the bark necessary for the cure of the intermittent was sure to bring it back. And though the intermittent generally subsided upon the appearance of the dysentery, the purging necessary to cure the latter insured its return. Upon the whole, no medicine answered so well in this complication as the solution of sulphate of zinc, or sulphate of zinc and alum, which tended to the cure of both disorders.

If there is any subject in the whole science of medicine perplexing to the physician, it is that of remittent fevers. That such fevers exist is beyond a doubt. We see intermittent fevers occasionally converted into them. We see them terminate in intermittents. Yet when neither of these occurrences takes place, it is sometimes extremely difficult

to determine the diagnosis between the continued and remittent fever. I have already stated my opinion, that miasmata have a share in modifying the common febrile diseases of Sicily. If this be true, remittents differ only from continued fevers, in having more exclusively for their cause the effluvia of marshes. That poison operating in a concentrated state upon a body weakened by the heats of summer, and exposed to autumnal damps, may be readily believed to produce a fever of a more malignant type, showing more early symptoms of debility, and less manageable under the treatment which I have proposed for those of the continued form.

As to the diagnosis of remittents, we may take it from the situation, the co-occurrence of intermittents in the same place, the passing of the one of these into the other, from the frequent and remarkable shiverings which do not appear in the continued fever, from exacerbations or remissions, when they can be detected, which however I have rarely been able to do, and from an early tendency to yellowness. Whatever may be the cause, the marsh miasmata seldom operate long on the body without producing this tendency. Yet on dissection the liver is frequently sound, that is, is neither hard, inflamed, obstructed, nor suppurated.

The duration of remittents is very various. I

have seen them, though rarely, last nearly two months, and they occasionally prove fatal in a few days. The stomach is sometimes after the commencement very irritable, and great quantities of bile or flocculent matter are thrown up. The bowels are costive in general. After the stage of debility comes on, the symptoms do not differ very materially, except in degree, in any variety of fever. But the yellowness is extreme in bad cases of remittent, and when it comes on early is a very unfavourable omen.

In some cases remittents are by venesection suddenly converted into intermittents, as I have remarked above. This happens chiefly in summer, when there probably is a combination of an inflammatory fever with one produced by miasmata. The bleeding extinguishes the one and leaves the other. Later autumnal remittents will not bear the same treatment unless very early used. If they can be attacked while the pulse is yet strong, I have constantly found the topical treatment of the head advantageous, not always by stopping, but frequently by alleviating the disorder. But the stage in which evacuations can be used speedily passes away, and is followed by one in which all the symptoms of debility, and sometimes of putridity, as it is called, make their appearance. The most beneficial practice in such a state has, according to my experience, consisted in active purging,

which is of the greatest benefit. Cinchona is of little service, unless in pretty clear remissions. Wine in the latter stages cannot be abstained from. But upon the whole, much must necessarily be left to nature in those instances where we can neither cut short the disease nor convert it into an intermittent.

CHAPTER VIII.

Of the Dysentery of Sicily.

DYSENTERIES, which occur sporadically at all times, are infinitely more prevalent in the end of September, in October, and in November, than in all the rest of the year. The disease frequently, but not always, makes its first attack accompanied with fever. Sometimes, though very rarely, there is a tenderness in the region of the liver. Very often indeed there is violent pain over the abdomen, rendering that part of the body painfully sensible to the touch. It appears thus, that there are several circumstances which may be superinduced over the simple dysentery, aggravating its danger and distress, and demanding additional methods of cure.

Dysentery is a disease accompanied with pain of the belly, tenesmus, frequent mucous and bloody stools, occasionally more or less of natural fæces being passed sometimes more liquid than usual, and more rarely in small lumps. I have not observed the constancy of the appearance of scybala.

In many cases none appear, and none are to be found after death by dissection. This observation has not only been made by myself, but by other practitioners of whom I have enquired concerning this subject. In none of the cases alluded to were any early astringent medicines employed. In this disease the tongue is generally furred. Towards the end, and sometimes earlier, it is redder than natural; and one of the worst symptoms in it is a dry, glazed, red tongue, which always betokens formidable disease within. The mucus discharged is at first thick, gelatinous, transparent, and greenish. In the progress of the disease it changes to a thinner matter of the same colour, which is converted successively to an opaque, a white, and finally a yellow substance, resembling pus. In all these alterations we may observe great analogy to the progress of the discharge of altered mucus from the urethra in gonorrhœa, which undergoes very similar vicissitudes of colour.

. Very few patients recover from the pus-like discharge. I have known many, or at least a considerable number, to be cured after the mucus had assumed a white appearance. The patient often stands out well against great violence of the disease, till all of a sudden in two or three days he becomes more emaciated than by all the former part of his illness, and dies in a very short time. I have thought that in such instances the diseased action had only in the last few days attacked

the mouths of the lacteals, and thus cut off all supplies from the system, which in consequence speedily perished.

As far as my experience has gone, I have seen no reason to suppose this disease to be contagious. It occurs amongst numbers nearly at the same time, probably owing to the changes of the atmosphere, to sudden diminutions of the temperature of the air, to the application of moisture to the skin, or to other causes, if other there be, which lessen the irritability and perspiration of the surface. If scybala occur only occasionally, they cannot be the cause of dysentery, which I think can hardly be doubted to be an inflammatory affection of the villous coat of the intestines, a gonorrhœa or catarrh of the bowels, as it has been metaphorically described. If this be true, we can easily understand how the diminution of the irritability of the skin should increase morbidly that of the alimentary canal, as well as the operation of sour wines and indigestible matter in producing dysentery by their stimulus upon a tender part. Nor does the co-operation of these two sorts of causes appear at all extraordinary. If this view of the subject be correct, there is no more generic difference between dysentery and diarrhœa than between typhus gravior and typhus mitior. As to the notion of dysentery being a rheumatism or a fever turned upon the intestines, I fear these are only learned and obscure methods of concealing our real ignorance.

By numerous dissections I have been unable to ascertain the constant or even the very frequent presence of scybala: for I think it hardly fair to consider as such a few masses of fæcal matter occasionally found in the colon, and certainly more frequent and more numerous there after diseases unconnected with the intestinal canal than after dysentery. I have never been able, as Cleghorn states, to trace the colon during life by the infarction of scybala in it. In fact, it must be a mild case of dysentery where it could possibly be done. For, in general, such is the pain of the abdomen, and such of consequence the involuntary contraction of the muscles, that it must be difficult to distinguish any internal part. Some degree of redness of the intestines is frequent. The omentum is sometimes diseased, and I have observed abscesses among the abdominal muscles running to the peritonæum. The intestines in old cases are often found in a great state of disease, covered with coagulable lymph, and adhering to themselves and the other viscera. And occasionally a man who is supposed to have died of dysentery is found after death to have had suppuration of the liver, mesentery, kidneys, and several or all of the contents of the abdomen.

With regard to prognosis, one always finds it difficult to be quite sure what parts are affected. But in young people, or those not broken down by courses of mercury or long debauchery, it is

good. Very few men die of the first attack, if the disease is properly treated. Old dysenteries are altogether unmanageable, frequently depending, as has been just stated, upon irremovable causes.

Dysentery demands some variety of treatment, according as it is simple or combined with other affections. These combinations are three, and I shall consider them first, because it is always advisable to simplify the disease, if possible, by removing these extraneous additions to its danger. We may then have,

- I. Dysentery with fever ;
- II. Dysentery with an affection of the liver ;
- III. Dysentery with inflammation of the intestines.

Whether dysentery always is accompanied with fever I know not : but in many cases, if fever ever existed, it is gone before the patient applies to any medical man. Dysentery occasionally alternates with intermittent, and is then very troublesome. When continued fever accompanies dysentery, it is usually not very violent. But if the pulse be strong, detraction of blood is advisable. The solution of zinc and James's powder are useful. Calefacients to the belly are to be applied, and doses of salts ordered every second day at least. The cold affusion is exceedingly pernicious, as I have experienced in a few cases where it was tried. In a moderate time the fever subsides, and the patient is

then affected with what I have called simple dysentery, though in a form not by any means so easily cured as when it has not been preceded by any feverish indisposition.

Dysentery with an affection of the liver is I should suppose rare in Sicily. It has hardly fallen under my observation. I have been informed, however, that such a combination is frequent in Egypt. The cure of such a disease, when it does exist, must depend upon bleeding, blistering, purging, mercury, and astringents, according to the violence of the symptoms and period of the disorder. If calomel is ever of use in dysentery, it must be, I should think, in such cases. In those which have occurred to me, though combined with opium, it has always proved a most unkindly application to the intestines.

Dysentery is often attended with inflammation of the bowels of the most acute form, so as to put a period to the patient's life in the course of a few days. It is that species of inflammation which is accompanied with looseness and not costiveness. Dissection shows the nature of this complaint distinctly. The inflammation, originally confined to the villous coat, rapidly spreads and becomes more intense, and we have a true enteritis. From some cause or other the intestines are greatly prone to inflammation in these latitudes. The rapidity, too, with which it proceeds is truly astonishing. I remember seeing a sailor, who, while in perfect

health, fell from the topmast, bruising himself considerably. He died comatose in four hours after, and his intestines were in the most complete state of inflammation ever witnessed by me, perfectly as red as scarlet cloth, so that it was somewhat doubtful whether the inflammation was not the immediate cause of his death. There is always in dysentery some degree of pain and tenderness of the abdomen. It is difficult to say exactly at what point these symptoms are to become primary objects of attention. But if they pass a moderate degree, if the patient moans, or is unable to move his body, they demand the most active treatment, such as is adapted for counteracting inflammation, copious bleeding and repeated blistering. When the inflammation is relieved, the dysentery for the most part still persists, and may be treated as if no peculiarity of disorder had previously existed.

Simple dysentery, as I have styled it, is always attended with pain of the belly, and probably with a minor degree of inflammation. It is not in general necessary to bleed for this symptom, though it is much better to do it if any suspicion of its increase exist. For the most part, however, the pain may be relieved without bleeding. The best remedy for this is a moderate dose of salts, as an ounce of the soda or magnesia vitriolata. The last is least nauseous, but both have great power in diminishing pain of the bowels. It is often necessary to repeat this medicine every day for a

number of times, or to alternate it with castor oil or rhubarb, till the abdomen be altogether or very nearly free of all tenderness. Along with these purgatives external applications to the belly are useful. Blisters are best; but they are painful, troublesome, and cannot be repeated often enough. Sinapisms, when good mustard is to be got, answer very well. But the best application that I have thought of, and one to which I now entirely trust in ordinary cases, is that of oil of turpentine. A large piece of flannel, soaked in the oil, is applied to the abdomen, and renewed from time to time, care being taken to remove it occasionally, to prevent vesication, which would impede the future use of it. This application seldom fails to relieve the pain, and its constant stimulus is perhaps better than the more powerful but more temporary one of blistering plaster. It acts instantly, and I have heard its operation compared by many men to that of a red-hot iron applied to the belly.

When by these or similar means the pain and tenderness of the abdomen are wholly gone, the disease is to be treated in a different way. We have now a slightly inflamed membrane, of which the exhalent vessels are too active, and perhaps pour forth a depraved or altered secretion. The skin is probably also in too inactive a state. Such a warmth of dress as may compensate for any alteration of temperature of the weather which may have taken place, is absolutely essential. A

flannel bandage round the abdomen is also very serviceable. I have not found the administration of antimonials sovereign in either this or the former stage; but they are sometimes beneficial, as various other remedies are. The most successful method of cure depends upon applying various stimuli to the bowels, to alter the diseased action of their internal coat to a healthy action. In trying to effect this, we must expect to have our measures thwarted by the peculiarities of individual cases, or what is called idiosyncrasy. It is seldom, however, that each variety of diseased action may not be met by some corresponding variety of stimulus. Most of those stimuli are such as, in proper doses, operate as purgatives. But that they do not act in the cure of dysentery by their cathartic quality may be inferred, first, because they are often given in doses greatly too small for that purpose; and, secondly, because when administered even in large doses they often do not increase but diminish the number of stools, and the quantity of alvine evacuation. I remember one striking case of this in a sailor of the name of Champion, who had been under my care for dysentery for three months. He at first had very considerable fever, and violent pain of the intestines. By treatment or the operations of nature these were in a great measure got over, and an obstinate purging of blood and mucus, with tenesmus, and some pain of the bowels upon pressure, remained, resisting all sort of ma-

nagement. At last the patient, who for a long time had a good appetite, and kept up his strength and spirits, began to sink, lost flesh rapidly, could no longer eat or sleep, and seemed within no great distance of death. At this time he had fifteen stools a day. I began to throw in opium, giving two grains at first; and finding some little benefit, I increased the dose by two grains each day, till I had got to 16 grains. This large quantity of narcotic medicine produced a little and but a little sleep. It at first brought down the purging by two or three stools a day; i. e. from 15 to 11 or 12; but in a very few days things went on again as before. At this time I ordered him an ounce of castor oil. Next day he had had only six stools. I ordered him a drachm of the oil morning and evening, continuing the opium. In two succeeding days he had five stools a day; and, as I particularly inquired, did not during the exhibition of the oil pass more fæces, mucus, or blood, at each motion, than before he took it; that is, the medicine did not operate by clearing his bowels. Following up my success, I administered on the fourth day another ounce of oil, which reduced the stools to four. He had then the small doses for a few days; and under their use was moved only three times a day. I next gave another ounce of the oil; but the bowels now having got near their natural tone, this purged him eight times. I now omitted the oil entirely; and afterwards he never

had more than two stools a day, which he told me he had often had when in health. All that remained was to strengthen him by good diet and wine, and to withdraw the 16 grains of opium, still taken by him; which I did by diminishing the quantity one grain every day, till it was omitted entirely; during all which time he never had a bad symptom, and is now, I believe, perfectly well. I think it is clear, in this case, that the castor oil did not operate as a cathartic, but by stimulating the exhalent vessels of the intestines to a new and healthy action. Many analagous cases have occurred to me, in which various other stimulants answered where castor oil failed. Sometimes one stimulus produces the best effects at first, till the constitution becoming accustomed to it, it is necessary to change it for another. And what is very remarkable, a medicine which is unsuccessful at one period surpasses all expectation at another. The patient whose case I have just detailed had been tried with castor oil at an early period of his disease without advantage. It appeared to me, that the opium, though inadequate to the cure of the disease itself, produced a state of the intestines favourable for the operation of the remedy which proved successful.

When a patient, then, is free of fever, and violent pain of the intestines, my plan would be, to try the effect of various stimulants, in small doses, till I hit upon that which agreed with the peculiar

case. To try such measures, or to give astringents, as they are called, but which appear to me to be only a variety of the stimulant class, before the pain of the bowels is well ceased, is not only useless, but pernicious. The pain is thereby rapidly increased; and if the purging is diminished, it is only to break out again more violently and obstinately, and attended perhaps with the discharge of scybala. As long as considerable pain remains, there is nothing to be done but to keep open the bowels by constant and varied purgatives. Sometimes, in less inveterate cases, a full dose of the sulphate of magnesia has suddenly terminated the disorder. How it should do this, it is rather curious to inquire. The alvine discharge in dysentery has a peculiar unnatural smell. When salts cure the disorder in the manner above remarked, each succeeding stool has less of this odour, and the last almost none at all. It may be supposed by some, that all the morbid matter being removed, no ferment is left for the production of more. I am rather disposed to think that they operate by exhausting the irritability of the intestines, which after violent action are disposed to fall into a state of repose, provided all inflammation is removed. Or we may suppose that one effectual application of the stimulus of the sulphate of magnesia was sufficient to restore the healthy action.

With regard to the kinds of purgatives, generally speaking, saline ones are the most beneficial.

Castor oil, however, is often of great use; and I have frequently employed full doses of rhubarb with advantage: no one of these will answer in all cases. Of the saline purgatives, the sulphate of magnesia is perhaps the best; but the sulphate of soda is little inferior in efficacy, though I once thought otherwise; but it is more apt to be rejected by an irritable stomach. Of the sulphate of potass, recommended by Dr. Mosely, I have no experience.

After the pain has subsided, a drachm of salts, twice a day, is often of great service, and diminishes the number of stools. The same dose of castor oil has a similar effect. One, two, or three grains of rhubarb, thrice a day, are in other cases advisable. Ipecacuan, in small doses, has not proved so useful in my hands. These remedies may or may not be combined with opium, according to their effect. It is never desirable to bring down the number of stools too rapidly, but rather, if possible, by degrees. Dover's powder agrees very well sometimes. Few prescriptions answer better than the solution of sulphate of zinc and alum, as proposed by Dr. Mosely, in the quantities of a grain and a half of the former and three grains of the latter, for a dose, given every two hours during the day. A smaller quantity must be allowed to delicate patients. This medicine often diminishes the frequency of the purging, and produces perspiration. The tincture of kino and laudanum, the extract of *heematoxylum* and

and laudanum, and catecha with laudanum, are all of great service; and one often succeeds when all the rest fail. Many other medicines may be tried. When every thing else has ceased to produce benefit, the patient may sometimes be kept alive upon opium administered with an unsparing hand, and may be preserved till the change of weather afford a chance for his recovery, as has been most truly observed and stated by Cleghorn. Anodyne clysters, containing a drachm and a half of tincture of opium, with four ounces of starch mucilage, are of the greatest service. I have repeated them three times a day with the best effects; but the anus is apt to get irritated and excoriated, or piles to make their appearance, by too frequent a use of this remedy.

Apparently mild cases of dysentery sometimes terminate fatally. Relapses also are readily brought on by imprudencies; and men who have had an established dysentery once are very apt to have a return of it in hot weather. There is in this disease, or at least after its first stage, no great occasion to restrain the patient in his diet, unless from fruit and acids. Cheese often agrees excellently after the first stage. Wine is rather useful for keeping up the strength during the exhaustion of a long illness; but it must be of a sort which is not tart, and ought not to be administered while the pain of the bowels gives room to suspect any remaining inflammation.

Dysentery appears to have been at least as frequent a disease in ancient times as at present. Boys under ten are said by Hippocrates to suffer most frequently from it. They still suffer greatly. But in modern times men who have broken down their constitutions by debauchery, hard drinking, and mercurial courses, are yet more liable to fall victims to this disorder. The symptoms which the same author remarks as of bad omen are, accompanying fever, inflammation of the liver, præcordia, or belly, violent pain, loss of appetite, and thirst. Where all these meet in one patient, he is said quickly to perish. This coincides perfectly with what has occurred to my observation, unless in as far as respects inflammation of the liver, which I have rarely noticed to attend dysentery.

Dysenteries of a long standing are sometimes accompanied with dropsy of the abdomen. Such cases very generally prove fatal, and after death the liver is often found enlarged and indurated. Mercury is the only remedy which seems to promise any thing in such a complication, but it is far from being very generally or certainly successful.

After dysenteries are cured, there often remains for a considerable time a total want of appetite. I have found no remedy so useful under these circumstances as a bolus composed of a scruple of rust of iron and the necessary quantity of con-

fectio aromatica, administered twice or thrice a day. Yet while the dysentery continues, this medicine frequently increases the irritability of the bowels, and in general is of no service; so different is the operation of remedies at different periods of the same disorder.

CHAPTER IX.

Of Phthisis.

It cannot be supposed that much novelty should appear in any observations upon a disease, the symptoms and treatment of which have been so much discussed as those of phthisis. Nobody pretends, however, that any great success has attended his efforts to cure this disorder. Warm climates have been advised often after hope was almost lost at home, and many an unfortunate sufferer has been driven abroad to breathe his last away from his friends, and amidst mercenary strangers. From the southerly latitude of Sicily, it is probable that it may be regarded by some, in the present moment of exclusion from the Continent, as a desirable residence for the consumptive. And it is in consideration of this that I have ventured to make the following very few observations upon phthisis pulmonalis, as it occurs in this island.

Phthisis is exceedingly common in Sicily. When the vicissitudes of the climate are considered, it is little to be wondered at, that soldiers, who are ex-

posed to them all, and are in general utterly destitute of prudence, should suffer frequently by this disorder. But the natives are by no means exempt. It is an ordinary and dreaded disease amongst them. Not only does its fatality excite their terror, but an universal persuasion of its infectious nature renders the unhappy patient an object of horror to his relations. After his death his clothes and bed are burned. The apartment in which he died is washed and painted afresh. Even the tiling of the floor, and the plaster of the walls and roof ought, according to law, to be renewed. The plague itself is not more terrifying. A Sicilian duchess having lent a few sheets of music to a consumptive lady, consulted me whether it would be safe to receive them again after fumigation. Yet I must fairly declare that I never was able to detect any proof of the contagion of phthisis in this climate, though patients afflicted with it have been indiscriminately mixed with those affected with other disorders.

The symptoms of consumption do not at all differ here from those of the same complaint in England. It runs the same course, is attended with the same fallacious hopes of recovery, and terminates in the same sudden and unexpected manner. The diagnosis of this disease is occasionally somewhat difficult. For the greater part there is but too little doubt. But there occurs a disease of the internal membrane of the trachea, without ulcera-

tion, considerably resembling phthisis, and not unattended with danger. I do not pretend to have always distinguished these two disorders from each other with perfect accuracy. But I have laid no stress upon inferences from any case in which there was not purulent expectoration and spitting of blood.

The only curative plan which seemed to be useful consisted in the frequent repetition of blisters, and in the administration of opium combined with squills in large quantities. Under this management I have seen the progress of many cases of phthisis arrested, and many men recover, for a time at least, a perfect state of health, who would in all probability have died in England. This treatment of course does not answer in all cases, but it is more frequently successful than I could have believed before trial. It appeared to me that the opium was the grand agent; and that by quieting the cough, and soothing uneasy feelings, it gave the constitution an opportunity to exert its powers for the re-establishment of health, aided as it was by the mildness of a southern climate.

In incipient phthisis the success is still greater. Unless a very strong disposition to tubercles exists, few cases will resist the unwearied and unceasing application of blisters, and the use of opium. Blisters are perhaps best applied when allowed to remain on so long only as to redden and inflame

the skin without vesication, which prevents their repetition as often as is advisable.

I have found digitalis of less advantage in Sicily than at home. But it is always very difficult to procure that medicine good in a warm climate. Sometimes, however, it has allayed cough and irritation when opium was unsuccessful.

The phthisical invalid who should chuse Sicily for his residence, ought to avoid, for three fourths of the year at least, the rainy and windy mountains of Messina. In summer that city is perhaps cooler than some other places, but the southern and western part of the island is both drier and warmer in winter, vicissitudes of temperature are less frequent or considerable, and if the patient is careful to guard against the heat of summer, by remaining within doors in the middle of the day, and to provide against the chilliness of the colder season, by preparing a house for his own accommodation, not forgetting a fire-place or stove, he will find the Sicilian climate, if not the best in the world, at least greatly more congenial to his frame than the fogs and rains of England, the effects of which no care can entirely prevent. If any fear should be entertained of the bad consequences of the extreme heats, it would be very easy to avoid all exposure to them, by residing during the summer in the higher and cooler districts in the more internal parts of the island.

CHAPTER X.

On Hepatitis.

HEPATITIS is in hot weather not an uncommon disease in Sicily. It is considerably more frequent than in England, and readily yields to bleeding, blistering, and purging, and to mercury when the first symptoms of inflammatory diathesis have begun to subside. The acute form of this disease is always accompanied with fever, and I have even seen cases in which the fever existed with considerable violence several days before the appearance of the characteristic symptoms of hepatitis.

Inflammation of the liver is common in all warm climates. That it is not so common in Sicily as in more southern latitudes, is owing to the inferior heat of the weather. It is very remarkable that the natives of warm countries are either not at all, or much less subject to this disorder than strangers from colder climates. Perhaps this arises from the different circumstances in which they are placed with regard to external heat. The system of the inhabitant of the north has been accustomed at home to afford a great supply of heat to counteract

the coolness of the air in which he lives. The process of making heat in the human body is, we have good reason to suppose, connected with the expenditure of the carbonaceous part of the blood. As every thing in our frames is governed by habit, the chylopoetic viscera prepare carbonaceous matter for this quantity of waste. People in general come suddenly into hot climates. It is reasonable to believe, according to the known laws of the body, that the habit of preparing the carbonic matter continues after this transition. But we know by Crauford's experiments, that the expenditure of it, at least by the lungs, instantly diminishes. Hence it ought to follow that a superfluity of carbonaceous blood must pass through the liver, which may stimulate it at last to increased action, may alter the nature of the bile, and cause depositions that may in future time prove the foundation of hepatitis.

Chronic hepatitis is yet more common than acute. Abscesses, indurations, and various extensive mischief frequently exist without much external sign. The peculiar leaden colour of the countenance is perhaps one of the best indications of the diseased state of the liver. That organ, though undoubtedly of great importance in the system, is however of less than some of the other viscera. It may be almost wholly destroyed, or rendered useless, before the patient sinks under his disorder.

In chronic hepatitis mercury has been long celebrated as one of the best remedies. Frequent moderate purging is also of great benefit. The liver cannot be evacuated in any other way than through the intestines. Nitrous acid is sometimes useful. It is, however, much less so than mercury. The best remedy of them all is change of climate, a return to those native and cold regions where people hardly know whether they have livers or not. This I should suppose to operate by reversing the process above described, to which I have ventured to attribute the prevalence of diseases of the liver in warm countries.

Abscesses of the liver not unfrequently burst through the diaphragm into the lungs, and the matter is expectorated. Some cases of this sort do well after a tedious struggle between life and death. Small quantities of mercury delicately administered, at proper periods, are often of use to resolve obstructions of the affected organ. When hectic fever attends, I have found digitalis occasionally beneficial, both in allaying the febrile exacerbations, and in promoting absorption of the matter.

There are some cases resembling phthisis, in which it is difficult to ascertain the precise seat of the disorder. We have cough, expectoration, pain obscurely referred to the lower part of the breast, emaciation, hectic and night sweats. These symptoms, however, do not certainly indicate the lungs to be the primary seat of the disease. They are,

in fact, affected rather by sympathy with the liver than otherwise. Such cases, though difficult to distinguish correctly, may in part be known by the leaden colour of the face, similar to what occurs in hepatitis. They are also remarkable for frequently becoming milder in winter, and worse in summer. Having, as I imagined, detected some cases of this sort, I tried the effect of mercury in them with the greatest advantage. By means of that medicine, gently employed, all the symptoms were alleviated, and the disease, which before was little affected by the exhibition of opium, now yielded entirely to the narcotic and quieting powers of that remedy. It would undoubtedly be desirable to be able to distinguish this variety of hepatitis with more certainty and facility.

There occurs in the end of summer, and in autumn, a disease, which though not hepatitis, is connected with it. The patient becomes sallow, weakly, and listless, loses appetite, has a foul tongue, and is costive. It seems as if the cause of fever were operating, but not strong enough to produce its full effect. Neither bleeding nor cold affusion are indicated or useful, notwithstanding that the patient is a little feverish in the evening occasionally, though very slightly. Nothing in such circumstances answers so well as daily and smart purging, by means of which an immense quantity of bile is carried off, and the symptoms speedily relieved. They may, and often do recur,

but the remedy is at hand, and must not be spared. Calomel answers very well. But it is apt to make the mouth excessively sore in some cases, for which reason I prefer other purgatives. A similar state of the body sometimes follows fevers of a remittent type, which yields almost always to the same means.

It occasionally happens that intermittents supervene upon the indistinct disease which I have been endeavouring to describe. After proper evacuations the cinchona never fails to cure the new derangement of the system, which indeed in such circumstances affords rather favourable omen than otherwise.

The sulphate of zinc sometimes turns out a remedy of value in the cure of this complaint. It may be used at the same time with the cathartic medicines, the operation of which it rather tends to diminish. Under its influence I have seen a speedy restoration of the tone of the stomach, the return of the healthy colour of the countenance, and a renovated vigour of the frame. As large doses of it ought to be administered as the stomach will bear without sickness.

CHAPTER XI.

Of Rheumatism.

RHEUMATISM, notwithstanding the warmth of the climate, is one of the most common diseases in Sicily. It is pretty nearly as unmanageable and vexatious a disorder to both patient and physician here as it is in more northern latitudes. A very great number of men afflicted with it having passed under my care, it is my intention merely to state, in as few words as possible, the effect of the remedies which I have employed.

The acute rheumatism was alleviated by bleeding and sweating, but seldom cured, and, when it was, almost never quickly. Warm bathing and cinchona have, according to my observation, been either useless or pernicious. I gave the cinchona in rather larger doses than usual, as far as half an ounce a day, since, if it was to do good, it ought to do so in a greater degree, in large quantities than in small, due regard being had to the state of the stomach and bowels. It certainly never did any great mischief, perhaps I might say none.

Acute rheumatism is followed by a state of the

disorder which cannot justly be called chronic, but which is half way to it, and terminates in it. In this state I have sometimes derived great advantage both from the warm bath and the bark. This is the only form of rheumatism in which either of these remedies has proved of great use under my management, and occasionally the good effects were both pleasing and striking.

Under the head of chronic rheumatism, it is probable that a great number of non-descript diseases are arranged. Every pain referable to no other cause is called rheumatic. Diseased lymphatics, muscles, periosteum, bones, cartilages, membranes, tendons, and other parts, if deep seated, and attacked with pain, can be regarded only as rheumatically affected, though the real nature of the disorder may be often very different. Chronic rheumatism is a very frequent disorder amongst soldiers. I have often struggled against its symptoms with all the means ordinarily employed, without all the success that might be desired. At last I tried the effect of mercury, which much more than surpassed my expectations. A combination of calomel and turpentine was recommended by Fothergill, and the use of mercury has been praised by other authors.

I have always introduced it into the system by friction. Of all the cases, and extremely numerous they have been that have been treated by me in this way, nine tenths have been within two

weeks restored to health. My practice was to touch the mouth gently, but effectually, and keep it so for eight days or more. After it was effected, I sometimes gave guaiacum in substance. But the pains were alleviated by the mercury alone, and I soon found the other remedy in a great measure superfluous. After getting rid of the greater part of the fevers and dysenteries in 1808, I found myself encumbered by a large number of cases of rheumatism to which my attention had been previously less powerfully attracted. I put 18 of them into one ward, and prescribed mercury for the whole. In 14 days 13 men were discharged cured. Of the remainder four went out soon after, and one appeared to have a fixed affection of the knee, which I soon got the better of by the aid of ten pease. In all instances where particular parts are fixedly attacked with rheumatic swelling, issues will be found of the most material use.

In chronic rheumatism bark has been of little service, according to my experience, unless in cases where there was very great debility or emaciation from other causes. Arsenic has not been of such decisive benefit as I had imagined it would have been. The safety of its exhibition for a long period of time has however thus been further proved, and I do not despair of its yet proving serviceable in some varieties of this troublesome and unmanageable disorder.

With regard to the cases thus cured by me,

some doubt may be entertained as to the nature of some of them. From one cause or another confirmed syphilis is a very frequent complaint amongst soldiers, and the mercury may thus be imagined to have done no more than remove venereal pains, leaving the certainty of their return. In most of the cases, however, no appearance of any taint existed, and the men positively denied having been ever affected. I know very well that truth is difficult to be got at in these circumstances. But with all that, allowing one half of the cases to have been occult pox, the rapid cure of the remainder is matter of gratification, and since we cannot always distinguish that disease from others, it would seem to me to be an excellent hospital rule to put *all* men with chronic rheumatism under the moderate influence of mercury in the first instance. Such is my practice with very few exceptions.

The warm bath, though sometimes successful, is in general of wonderfully little use in chronic rheumatism. A course of blisters is occasionally more serviceable. But the advantage derived from the exhibition of mercury has superseded the necessity of applying less certain means of relief.

In the same stage of rheumatism in which bark is useful, I have sometimes derived advantage from the exhibition of sulphate of zinc, to the use of which I was led by the analogy between its action and that of bark in curing intermittents. The

same medicine, I may remark, exerts a powerfully tonic action upon the debilitated stomach in other diseases, and increases the appetite very considerably in many cases. In rheumatism, besides its tonic power, it appears to be useful by keeping up a constant and gentle diaphoresis. On the whole I am disposed to view its introduction into the cure of this latter disorder as somewhat important. I have stated that the zinc can be given in cases of intermittent, where the phlogistic diathesis makes bark improper and ineffectual. Something similar is true in rheumatic affections, which are often accompanied by inflammatory symptoms. In such cases we can frequently give the zinc with safety, when cinchona would either be useless or produce mischief. The zinc given early contributes at once to diminish the inflammatory diathesis, and to relieve the pains, and paves the way in cases where it is not itself successful for the exhibition of the bark. It may be administered in doses of from half a grain to two grains every two hours. It must be so regulated as to produce little or no nausea. Sometimes it is advantageously joined with cinchona.

CHAPTER XII.

Of the medical Use of Borax, with some Observations on Erysipelas.

THERE is a little disorder to which children are extremely subject, affecting them successively with exudation, ulceration, and inflammation behind the ears, accompanied by a plentiful discharge of an irritating and corrosive quality, so that drops of this matter, accidentally falling on the sound parts of the skin, sometimes occasion small pustules. It has occurred to me frequently to meet with this complaint, and though it is not of a magnitude sufficient to affect life, it is often abundantly troublesome and difficult to remove, especially in bad or gross habits. Occasionally it is apt to leave scars of an unpleasant aspect, and sometimes, by affecting the glands in the neighbourhood of the throat, to produce yet more distressing deformities. These bad consequences are certainly rare, but there is still enough of inconvenience in the simplest form of the disease to make the medical practitioner anxious in his endeavours to accomplish its speedy removal.

This affection begins with appearances of no great malignity ; but being frequently neglected at first, quickly becomes more serious. I have seldom seen it on one of a family of several children, without soon after observing most of the rest attacked by it in a greater or less degree. In all probability this arises from want of a strict attention to cleanliness, and especially from the servants incautiously using the same towels to wipe the ears of the children after washing. It is not probable that the infection can be communicated in any other way than by actual contact. There is a popular prejudice against curing this species of ulcerative inflammation : it is firmly believed by many, that the discharge arising from it relieves the head, and prevents more formidable disorders. But though I have succeeded in healing up the affected part in many instances very rapidly, I have never observed the slightest ill consequence, but on the contrary, many bad effects have resulted from the opposite mode of treatment. Without doubt, in various diseases it is of advantage to excite irritation and discharge from the head. As these diseases, however, are by no means frequent companions of this *ponaural* ulceration, so when they do accidentally concur, we have it in our power to make an artificial drain in a much more commodious and effectual manner.

One of the best applications made by nurses to the ears of children affected with this complaint,

consists in half-burnt linen rags, which act in part by absorbing the acrimonious discharge, and which appear to have also some astringent quality. But this is more of a palliative than of a curative nature, and the affection will frequently continue, and even increase during its application. Indeed if this were not the case, the medical practitioner would very seldom have an opportunity of witnessing the effect of his prescriptions in this complaint.

The most natural remedy for such a disorder appears at first sight to be something of an astringent nature, which might close the mouths of the exhalent vessels, and afford an opportunity for the powers of the animal economy to complete the cure. Accordingly when these cases first occurred to me, I made trial of every astringent, either vegetable or mineral of which I had any hopes. Amongst these were an infusion of catecha, solutions of alum, of the *zincum vitriolatum*, &c. None of these, however, were of any great use, at least not generally and uniformly, and certainly none of them effected a speedy cure. As the disorder is accompanied with a good deal of heat and itching about the parts, and often with some redness and inflammation, I resolved to change the plan, and continuing the indispensable and scrupulous attention to cleanliness, I ordered the application of sugar of lead water. This method, however, succeeded no better than the former.

At last I thought of trying the effect of borax, which did all that could be desired of any application. In a very few days hardly any trace of the affection remained, and a similar success has attended the use of it in my hands in many cases since. Half a grain of borax to an ounce of water forms a solution of sufficient strength for most patients: a larger proportion is sometimes apt to irritate. I do not know that this observation has been made by any one else before. If it has not the knowledge of the fact may be useful. If it has I shall at least have the satisfaction of confirming the experience of others.

Soon after discovering the efficacy of borax in this disease of children, I had occasion to see a female infant who had formerly been attacked with the ulceration behind the ears in a very severe degree, and who had been speedily cured by the remedy already mentioned. This patient was now affected with an erysipelatous inflammation of some extent, originating about the pudenda, and accompanied with a discharge of matter from the vagina. There could, from the tender age of the infant, be no suspicion of any venereal infection, and in all probability the discharge was the ordinary effect of increased action in the vessels of a secreting surface. Having before witnessed the power of borax on this patient, and there existing a considerable apparent affinity between the affection of the ears and that of the pudenda, I resolved

to try the boracic solution. It was accordingly applied, but without the smallest advantage. The complaint, however, yielded instantly to a weak solution of acetate of lead. It so happens that I have twice had this patient under my care for ulcerated ears, and twice for this inflammation of the pudenda, and it has appeared quite clearly, that in this individual case the solution of borax is a certain cure for the ulceration of the ears, and is wholly inert, if not mischievous, when applied to the inflamed pudenda: whereas the saccharum saturni has qualities directly the reverse. The Hunterian doctrine of the peculiarity of action in different species of inflammation seems to afford the best explanation of the phenomena above remarked. The ulceration of the ears is in this view occasioned by a peculiar poison exciting a peculiar action, which is to be removed by some remedy suited to excite an action of an opposite kind. Hence, when this action, or some similar one is not present, borax cannot be useful. But sugar of lead, the general composer of excessive and simple action, though useless in the ulceration of the ears, produces its due effect in the inflammation of the pudenda which probably has nothing peculiar in its cause or nature.

I may take this opportunity of remarking, that the boracic solution is frequently an useful application in some of the varieties of herpes, especially of the dry and scaly kind. Its efficacy in this way,

however, is not so great as to enable the practitioner to trust a great deal to it. But occasionally it produces effects unquestionably good, and in disorders where all the power of medicine is often too little, even a weak auxiliary is not to be despised.

The inflammation of the pudenda is by no means a rare complaint. It bears the strongest resemblance to erysipelas, and I was led to prescribe the solution of acetated lead, in consequence of my having previously been in the habit of using it in cases of erysipelas or erythema with considerable advantage. No disorder has been more differently managed at different times and places than erysipelas. Even at this moment, when some approach to liberal principles, a free communication of ideas, and a more general diffusion of science contribute to adorn and advance the medical art, the treatment of this disorder is yet extremely unsettled. We find that in London patients affected with erysipelas have bark and stimulants ordered to them; even when no putrid symptoms appear, and when the most decided marks of an affection of the brain are perceptible. Whereas in most other parts of the island the antiphlogistic plan is pursued with no less confidence and perseverance. It is extremely difficult to see upon what principles so decided a difference of practice can subsist, unless it be admitted as a solution of this question, that in a great town the constitution of the inhabitants is affected in a peculiar manner by their

habits of life, and the corrupted atmosphere which they breathe, that the inflammatory stage of diseases is shorter, and the state of debility earlier and more violent.

But without regard to any internal mode of treatment, the external applications in cases of erysipelas are now by general consent confined to dry powdery substances which may absorb any effused matter, and produce a little coolness on their first application. All the rest of their operation is more likely to do harm than good. Erysipelas and erythema, thus treated, are tedious diseases, accompanied often with much pain and a distressful sensation of heat. Instead of attending to the urgent calls of nature for cooling applications, every thing moist, astringent, or cold, is avoided with the utmost care, and if we can only save the patient from gangrene or metastasis, we give ourselves little trouble about the length of his illness or the uneasiness of his sensations. Moist applications have been accused of causing the inflammation to spread, of increasing the tendency to mortification, and of endangering a translation to some internal part. The first of these objections is however by no means unanswerable. The disorder is much more likely to spread by allowing its activity to remain unimpaired, than by the moist substances carrying the acrid matter to sound parts; and the whole doctrine of acrimony seems extremely questionable. No doubt acrid matters will pro-

duce erysipelas, as they will also phlegmon. But surely erysipelas often spreads without any suspicion of acrimony being the cause of its spreading. Such, for example, is the case when it advances upwards, which it often does: in instances of this sort the acrimony ought to be volatile to accelerate the progress of the disorder, and cold moist applications seem much more likely to repress volatility than any dry bodies whatever.

With regard to the tendency to gangrene, I can only say, that in numerous instances where I have directed the application of cold moist substances, I have never observed any thing favouring such a supposition. But if a part seemed from its appearance likely to sphacelate, it might be perhaps imprudent to order any application of the kind now spoken of, though it is very doubtful how far matters would be made any worse by it.

Of metastasis, unless when the disease is situated on the face, authors in general now confess that no great danger is to be apprehended. Even when the disease has affected the face, I have used saturnine applications with safety and advantage. The arguments against repellents regard then only a few cases. If an erysipelas had already assumed the appearance of a tendency to gangrene, perhaps it would be advisable to omit the cold application. If it is situated upon the face, I am not prepared with the small number of cases which I have treated, to recommend indiscriminately the cooling plan. But

with these two exceptions, it is probable that great advantages might be derived from a more free use of cold and sedatives, that the sufferings of our patients would be considerably diminished both in duration and in degree, and that the tendency to suppuration so usual in erysipelas, which persists for any length of time, would be greatly abated.

Apprehensions have been always entertained by the elder physicians of repelling any disorder which had its seat in an external part. Some of the theories which formerly prevailed favoured such fears, and in latter times many seem to have imbibed their terrors without adopting their doctrines. The same observation has often been made with truth in other parts of medicine, and I am persuaded that is only a remnant of ancient prejudice which has induced physicians to avoid with so sedulous a care the use of refrigerants in erysipelas. Nay, I cannot help thinking that many who have condemned have not tried these remedies, or have employed them in such a manner as to render their effects doubtful, if not pernicious. For in my hands the good consequences have been so conspicuous, that if similar observations had come under the eye of others, the reports must have been extremely different.

The application which I have been in the habit of using for erysipelas is a weak solution of acetate of lead, containing half a grain of the salt to each ounce of distilled water. It is of importance that

it should not be used too strong. The skin of a part affected with erysipelas is unusually tender, and will not bear the same applications which are beneficial in phlegmon. All this, however, must be regulated by the particular case. The solution must be applied by means of linen rags moistened with it. The effect of this treatment has been an immediate abatement of the pain and heat of the part, and very often in the course of one day a considerable reduction of the inflammation. I have made it a rule in most cases to accompany this plan with the exhibition of bark in substance, and I can safely affirm, that I have never seen gangrene follow this disorder, though I have treated in a similar way a very considerable number of patients. The advantages which I conceive to be derived from this method are a much more rapid cure, much less pain, and considerably less risk of suppuration, always an inconvenient termination of this complaint. The necessary precautions need hardly be repeated. If the patient be very old and feeble, and the erysipelas extensive, the cold might prove too debilitating for his constitution, if applied over all the diseased surface at once. In like manner the application would be improper after any considerable tendency to gangrene had appeared, and perhaps might be doubtful if the erysipelas were seated on the face. In determining the cases in which refrigerants might be improper, or at least imprudent, much must

necessarily be left to the judgment and sagacity of the practitioner. But I am persuaded that in a great majority of instances refrigerants may be applied, not only with perfect safety, but with the greatest and most manifest advantage.

There is one disorder called a variety of erysipelas, the zone, which surrounds the waist, and is accompanied with a pustulous eruption. It is proper to state that the application of the solution of lead has not, according to my experience, produced the same salutary effects in that disease as on other occasions, though no bad consequence followed that practice.

How far the cold affusion might answer in cases of erysipelas, accompanied with fever, it may be deemed presumptuous in me to conjecture without some trial. But if the above remarks shall be found to coincide with the experience of other practitioners, in future, I imagine that some of the greatest objections to the extension of the practice of Currie to this disorder will lose much, if not all of their force.

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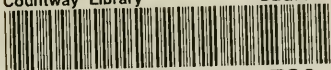
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